THE LANCET.

LECTURES

ON THE

ANATOMY, PHYSIOLOGY, AND DISEASES OF THE EYE.

By MR. LAWRENCE.

London Ophthalmic Infirmary, Moorfields.

Lecture XVIII.

Iritis continued.—Inflammation of the internal Tunics generally.—Arthritic Inflammation of the Posterior Tunics.

Gentlemen,

At the conclusion of the last Lecture, I mentioned to you what is known of the *modus operandi* of mercury in iritis, and spoke of its great efficacy in the treatment of the affection. I might relate many cases illustrative of the doctrines I then advanced, but I consider the matter so well established, that it would only be waste of time to detain you with their recital.

With respect to the *period* in any particular case of iritis, after which mercury cannot be employed with advantage, that indeed would be difficult to determine. The question of practical importance is, whether there is any advantage in using it after the active period of the inflammation is gone by? I can only say that in many such cases I have seen the use of mercury attended with the greatest benefit to vision. I speak of cases in which pain, redness, and every indication of active mischief have disappeared; and where the iris has regained its natural appearance, and the apparently permanent effects of inflammation were produced, such as organised adhesions, and considerable imperfection of sight. In many such instances, where several weeks have elapsed from the apparent recovery of the organ, and where the remedy has been used almost without expectation of advantage, it has nevertheless been of great service, and essentially improved vision. In such doubtful cases, it is better to give the patient a chance than to neglect it; as the circumstances are not urgent, the mercurial influence may be gradually produced, but it will be necessary to keep up the action for some time. But iritis, of which I have now spoken to you generally, is not one uniform affection, always pursuing a certain course and marked by the same symptoms; it presents itself to our observation under various modifications; there are differences in the phenomena, and corresponding differences in treatment.

The cases of this inflammation differ very much in the severity of the symptoms, in the rapidity of progress, and in the entire duration. Hence the distinction of *acute* and *chronic iritis*; or the threefold division, which some have proposed, of *acute*, *subacute*, and *chronic*. The simple division of acute and chronic answers the practical purposes of distinction; there are, indeed, numerous gradations, but in this, as in other cases, it is sufficient to mark the difference of character generally. We cannot pretend to give a name to each degree.

The acute form of the disease is seen in robust persons of full habit, where a powerful cause has acted on the organ, and more especially if the case has been neglected at the commencement, or the cause has continued to act. Here we shall find bright external redness, great distension of vessels, rapid and general change of colour in the iris, contraction of the pupil, effusion into its aperture, dulness of the cornea, loss of sight, agonising pain of the eye, severe head-ache, and considerable fever with restlessness and want of sleep. In a few days vision is irreparably lost.

On the other hand, iritis may arise so slowly, proceeding to effusion of lymph and its organization into adhesion, to diminution or even loss of sight, that no pain is felt in the part, no redness takes place, no alteration is observed by others,

and sometimes not even by the patient, who even discovers the disease accidentally.

Between these two contrasted cases, you may have numerous intermediate degrees.

Inflammation more readily extends to the rest of the organ in acute cases, yet this extension may equally occur in the more chronic cases. The prognosis must be drawn from a combined consideration of the time the affection has lasted, and of the visible effects produced. Irreparable injury to the organ may occur in a few days, when the inflammation is acute. A fortnight, three weeks, or a month may elapse in the ordinary middling forms without any serious mischief, and a still longer duration does not preclude the expectation of recovery in the most chronic form of the complaint.

The effects of mercury are most visible, and its influence is greatest in the acute form of iritis, where the effusion of lymph has occurred within a short period, and is considerable. The remedy, however, is not to be omitted where this stage has gone by, and the adhesions seem organised; at this period, a full mercurial action, kept up for several weeks, often produces great improvement of vision.—[Mr. Lawrence mentioned the case of a lady, who found out, by accident, that she had lost the sight of the right eye; she had experienced no pain, there had been no visible sign of disease, and she only discovered that the right eye was deprived of sight by shutting the other in looking at a painting. At this time the right pupil was fringed throughout its whole extent with minute thread-like adhesions. In a short time, the left eye became affected; the iris was inflamed, and the pupil adhered, but there was pain, and some slight external redness. A mild antiphlogistic treatment, followed by the use of mercury, removed these symptoms, and restored sight; but it was necessary to continue the mercurial treatment for some weeks. A relapse took place at the end of a year, when the employment of mercury was again successful, but not till after many weeks' perseverance in its use. In a third relapse, the patient again used mercury, from her own conviction that it was the only means of restoring her sight; she employed it by friction, and persevered for five months before vision was restored. In a fourth renewal of the disease, although it was slightly checked, it destroyed vision.]

Iritis has been again divided into *idiopathic* and *sympathetic*; it has been called *idiopathic* when occurring in a healthy system, and *sympathetic* when arising in unhealthy states of the constitution.

Idiopathic Iritis is that form of the affection which takes place from direct mechanical injury, as from wounds or operations, or from the ordinary sources of irritation, in persons, generally of full habit, who are in all other respects healthy. In this form of the affection, when it is acute, we see the abscesses of the iris already described, that is yellow tubercles slowly arising on its surface, projecting into the anterior chamber, bursting and giving issue to matter which appears under the form of hypopium. There is a bright vivid red in the vessels forming the zone around the cornea; the pain in the organ and in the head are considerable, and there is often much fever. Active antiphlogistic treatment is necessary in the first instance; if the local symptoms are violent, and there is feverishness with white tongue, a large bleeding from the arm may be followed by cupping on the temple, or free leeching, and a brisk purgative. The mercurial plan may then be begun, and should be steadily prosecuted.

Syphilitic Iritis.

This is one of the most common modifications of iritic inflammation; and when we refer to the various affections of the organ of vision, we see that we must not confide too much in great names. Mr. Hunter, who has been regarded as the great authority on the venereal disease, has not mentioned any form of that disease as taking place in the human eye; yet there are three well marked affections of the organ, clearly referrible to this source. *First*, gonorrhœal inflammation of the conjunctiva; *secondly*, syphilitic inflammation of the iris; and *thirdly*, syphilitic ulceration of the palpebræ on their mucous surface.

Syphilitic iritis is one of the secondary symptoms of syphilis, taking place in what is called the constitutional stage of the disease. It occurs when the disease shows itself in what Mr. Hunter has called the second order of parts; that is, in the skin and throat. It is usually seen in conjunction with eruptions, or ulceration of the throat, or both. Patients often refer the attack to cold, or other external excitement; but in many instances we have no such cause; why indeed should this, more than the other symptoms, require for its production external excitement? Does not the action of the morbid poison on the system account for syphilitic iritis as well as for eruptions and sore throat? May we consider that

the exciting causes, which in a healthy individual would produce common inflammation of the eye, bring on this kind of iritis in the syphilitic state of constitution?

Symptoms.—In syphilitic iritis, the red zone round the cornea is described to have a slight brownish tint. The Germans call it a cinnamon brown. The pupil is contracted, generally changed in figure, and appears to be drawn toward the root of the nose; the iris, at least, is narrower at this part than in the rest of its circumference. Not only is the iris generally altered in colour, but it exhibits, often in its pupillary margin, or in other situations, distinct effusions of lymph, in masses or tubercles of a reddish brown colour. When these are situated on the edge of the pupil, they fix it to the capsule, and thus make the aperture angular and very irregular. The pain in syphilitic iritis is chiefly nocturnal; the patient is easy during the day, even in instances where the external redness is considerable, and where, judging from that only, constant and severe pain might be expected; but toward night, then the pain comes on, perhaps not exactly in the eye, but in the brow and forehead, and is so severe as to prevent sleep. As morning approaches, the pain goes off, and in this respect it corresponds to what is observed in syphilitic inflammation of the bones. The most striking characteristics of this affection are the cinnamon colour of the zone aroond the cornea; the contraction and displacement of the pupil toward the root of the nose; the reddish brown lymph effused in small masses, appearing like drops upon the iris, and the nocturnal character of the pains. Taking the affection altogether, it is not usually a very acute form of disease; it arises slowly, and does not proceed rapidly through its stages, so that there is plenty of time to employ such measures as are necessary to check its progress, and therefore I have no hesitation in saying, that it is the fault of the medical attendant, if the disease impairs vision. Yet, if it be not checked, fresh masses of lymph will be effused, filling up the pupil, and occupying a great part of the anterior chamber; the inflammation will extend to the ciliary body, to the crystalline capsule, to the posterior coats of the eye, and to the retina, and thus prove destructive to vision.

Among the various kinds of venereal sores which we observe, primary sores, I mean, it may be naturally inquired, whether there is any one more commonly followed by syphilitic iritis than another? I do not know that any particular kind of sore is attended with a greater probability of this secondary symptom. However, it happened to me some time ago, to have under my care, at one time, three gentlemen, who had primary venereal sores of similar character, and who had afterwards syphilitic iritis. The sores had the appearance, at first, as if the cuticle had been simply removed; the skin and cellular membrane became thickened and indurated, the ulceration still retaining its character of mere excoriation. They were obstinate, lasting several weeks. In two of the cases, mercury was used, and in the third it was not; and within three months from the healing of the sores, scaly eruptions came out on the skin, and superficial ulceration appeared in the throat, and syphilitic iritis was added to these symptoms in a few weeks. The free use of mercury was necessary in each of the three cases; it completely and permanently removed all the symptoms.

I have seen syphilitic iritis only once in the infant; it destroyed vision in both eyes. The patient was not shown to me until after this termination: mercury had been employed too sparingly.

Treatment.—If the case has a chronic aspect, if the action should not be going on very briskly, (and I have before said, that this form of iritis is seldom very acute,) you will merely have occasion to resort to the use of mercury; but if there be much pain in the part, or any urgent symptoms should supervene, then you should abstract blood locally, by cupping or by leeches. You will apply the belladonna at the same time, to prevent the contraction of the pupil; and as the pain over the orbit at night is generally a very distressing symptom, you should employ the frictions of mercurial ointment and opium on the brow. The Germans, and Beer in particular, employ the oxymuriate of mercury in solution, as a lotion for the eye, and insert between the lids the red precipitate ointment, making these local means the principal part of the treatment. Such stimuli are quite inadmissible in the inflamed state of the organ, which they will aggravate: they have not, in this mode of employment, any influence over the specific disease, which may be certainly and effectually controlled by the treatment already described.

Arthritic Iritis.

In persons of gouty and rheumatic constitution, inflammation of the iris is a very common affection. The circumstances which characterize this affec-

tion, are the temperament of the individual, and the previous occurrence, or present existence of gout, or of rheumatism, or of pains referrible to those causes. The zone is not bright red; often, indeed, it has a dull and even livid colour; the vessels composing it terminate short of the cornea, so that there is a narrow white boundary interposed between the zone and the cornea This white edge is often partial, being observed more especially towards the angles of the eye. In the commencement of arthritic inflammation, the pain is not considerable; the patient complains rather of an uneasy sensation about the eye, and during the progress of the complaint, there is a kind of piercing and lancinating pain in the parts around the eye, and on the affected side of the head. The iris becomes altered in appearance, but there are no masses of lymph effused; the pupil contracts, retaining its central position and circular figure; it becomes fixed, however, by adhesion to the capsule. The arthritic iritis will proceed to a certain extent, the symptoms will then go off, and the eye ultimately recover; even in cases which appear at first severe, and in which adhesions of the pupil have taken place. People generally have repeated attacks of this kind; there may be, with such, some slight adhesions of the pupillary margin, but we are surprised, at first view, that these repeated accessions of inflammation should occur, and yet leave the organ subsequently in the full exercise of its function. I remember a gentleman who consulted me on account of severe inflammation of the eye, and there was so much intolerance of light, that I could hardly see the organ. He told me that he had an attack of the same kind every year; and when I was able to obtain a sight of the eye, I found that the iris, which was blue in the sound eye, had become green, and that there were in both eyes adhesions connecting nearly the whole pupillary border to the capsule of the lens. It was a marked case of arthritic inflammation; he had had fourteen of these attacks, and yet vision was unimpaired. The adhesions of the pupil, in these cases, are generally white, the aperture becomes more and more contracted in each succeeding attack, and often an opaque adventitious membrane fills it entirely. Thus vision is ultimately destroyed. The tendency to disorganization of the iris is not so great as in other forms of iritis. After repeated attacks, and with a pupil contracted, and filled with an opaque substance, the iris is often seen quite natural. The cornea is seldom implicated. Sometimes one violent attack closes the pupil, or greatly contracts, and fills it with a dense opaque ping. Sometimes too, complete disorganization, with puckering and tubercular projection of the iris, are caused by gouty inflammation. Opacity, first of the capsule, and afterwards of the lens, are not uncommon consequences of arthritic iritis; such cataracts are almost always attended with adhesions of the pupil.

Treatment.—The arthritic neither requires nor admits that free use of mercury, which is so advantageous in other forms of iritis. The Germans, who have attended most to the subject, have noticed this, and, as far as my observation has extended, it coincides with their experience. I have seen cases of arthritic inflammation, in which a full use of mercury has been found to aggravate the symptoms. Cupping and leeches, and counter-irritation by blisters to the nape of the neck, will be found very useful in these cases; and after the bowels have been acted upon by some brisk aperient, mercury may be advantageously had recourse to in small doses, such as five grains of Plummer's pill every night, or every night and morning, using at the same time such aperients as the state of the alimentary canal may require. I have found that this mode of treatment is capable of checking the complaint; that it will prevent the affection from going to any serious length, and will restore the sight of the patient, as well as benefit his health generally. The Germans recommend in this affection another mode of counter-irritation, namely, by rubbing tartar emetic ointment on the cervical region of the spine; they also rub opium, moistened with saliva, on the brow. They recommend dry warmth to the organ, and are very particular in their directions to guard it from moisture and from cold. Tepid fomentations are the best local means, according to my experience. The regulation of the diet should be attended to, all stimuli should be avoided, and strict attention paid to the state of the stomach and alimentary canal. All those circumstances which tend to disturb the general health must be avoided.

Iritis sometimes occurs in connexion with *cutaneous affections, not syphilitic.* Cutaneous affections may take place in various unhealthy states of the constitution. There is a great connexion in point of morbid phenomena between the iris and the skin. The seat of colour is in the skin, and the seat of colour of the eye is the iris, and there is a considerable tendency in cases of disorder of the skin to

affections of the iris. The eye will sometimes suffer in the scaly eruptions of the skin, and the iris particularly so. A case occurred some time ago at Bartholomew's Hospital of this kind. A woman about forty years of age, of a light complexion and sanguineous temperament, was admitted under the care of the physician, with *lepra*; the patches of which covered the whole body, head, trunk and limbs. She had been in the Hospital six or eight weeks, and had undergone the common routine of treatment, such as Plummer's pill, purgative medicines, &c. without any benefit, and she then began to complain of her eye being sore, and said that her sight was getting dim, and on this account I was requested to see her. When I looked at the eye, I saw that she had a decided attack of iritis; there was lymph effused upon the margin of the pupil, the iris was changed in colour, and there was the vascular zone around the cornea, and vision was seriously impaired. She had also leprous eruption over the whole body. The inflammation of the eye, and the cutaneous affection gave way together to the mercurial influence, but not rapidly; her constitution did not yield readily to the remedy; she took twelve grains of calomel every twenty-four hours, for some weeks before she recovered. A relapse of disease having taken place, both in the skin and eye, she came back to the Hospital requesting that mercury might be again used, as she knew it would cure her. She again employed it freely, and was at last unwilling to leave it off, fearing a return of disease. The cure was now permanent.

There is a tubercular disease of the skin, particularly affecting the face, but often extending over the body, and attended with much debility and general constitutional derangement. It is generally accompanied by iritis; but the latter, in such cases, is easily removed, by a mild antiphlogistic treatment, and moderate use of mercury.

In strumous children, inflammation commencing in the external parts of the eye, sometimes extends to the iris; this *strumous iritis* is usually attended by some change of structure in the cornea. The opaque state of the cornea prevents you from observing the changes taking place in the iris, so that the very existence of the iritis is often not known, until it has gone through its course and come to an end. The treatment is the same as for strumous ophthalmia generally.

Inflammation of the Internal Tunics, generally.

You have seen that inflammation commencing in the iris will extend to the other internal tunics of the eye, and indeed may affect ultimately the whole organ; but the posterior tunics themselves become occasionally primarily inflamed, and this is called internal inflammation of the eye, or inflammation of the internal tunics; it is the *ophthalmitis interna idiopathica* of Beer. Probably its usual commencement is in the retina.

Symptoms.—The leading characteristics of this affection are, pain in the organ, impaired vision, with originally, and often throughout, but little external redness. The pain is deep seated, of a dull aching kind, often with sense of heat; it is aggravated by exposure to light or by using the organ; it soon extends to the brow, to the occiput, and to the whole head. The sight becomes dim, as the patient expresses it, and it grows gradually worse. At this period there will be perhaps very inconsiderable external appearances; a little increased redness of the sclerotic coat round the cornea, and so little that you would hardly at a cursory glance notice it. The pupil is either rather contracted, and the iris moves quickly, or the former may be somewhat dilated, with sluggishness of the latter. The former is the earlier state, denoting excitement of the retina, while the latter circumstances indicate more advanced affections with loss of sensibility in the nervous structure.

The patient is feverish; there is heat of skin, thirst, white tongue, a disturbed state of circulation, and restlessness.

With the continuance of the complaint, the inflammatory symptoms are more developed and obvious. The sclerotic redness increases, and forms a bright red zone round the cornea. The iris changes colour and expands, the pupil contracting towards the centre, losing its clear blackness, and becoming filled with a web of lymph, effused from the thickened margin. The sight becomes more and more imperfect, and is soon lost. This happens from the inflammatory excitement and consequent change in the retina; it takes place before the entrance of light is mechanically impeded by the changes in the pupil. After vision is entirely lost, sparks, flashes, and various luminous appearances may still be perceived, and even be troublesome to the patient.

In the second stage, with increased external redness, pain, head-ache and fever, the pupil closes, sight having been previously lost. The iris becomes convex, being pushed forwards towards the cornea, so as to diminish or destroy the an-

terior chamber. Suppuration occurs, matter is effused in front of the iris, constituting hypopium; blood is sometimes mixed with it. Now the internal and external tunics are fully involved, and the appearances are those of general ophthalmitis.

The results of such an affection are, closed pupil, with the formation of an adventitious membrane, insensibility of the retina from change of structure, consequent on violent inflammation, large suppuration, making its way externally, and leading to collapse of the coats, contraction and partial obstruction of the pupil, with impaired function of the retina, opaque capsule and lens.

Prognosis.—When disease attacks the nervous structure, in which vision immediately resides, and the pupillary aperture through which light must enter the organ, the case cannot be otherwise than serious, requiring the closest attention, and active treatment. The prospect is favourable in the beginning, and is less and less so, in proportion to the duration. The state of the retina, as indicated by the degree of vision, and the condition of the iris and pupil are the most important criteria. Greatly impaired vision, produced quickly, with pupil still clear, and not much contracted, may be restored. If sight should have been totally lost, before the pupil has closed; or if that opening be much contracted and vision gone, there is no hope. The loss of vision is not altogether discouraging in itself; but it is a bad sign when connected with considerable change in the iris and pupil, great external redness, &c.

The treatment must be the same as in general inflammation of the globe (ophthalmitis) or in iritis; it must be antiphlogistic in the first instance, and this must be followed up by the decided use of mercury, combined with the local employment of belladonna.

It might be expected that the antiphlogistic measures alone would answer the purpose; but this is not the case; they check the disease, they diminish the external redness, the pain and head-ache, and relieve the patient altogether, but they do not improve the sight much; they do not control that excited state of the capillary circulation, which threatens such dangerous results to vision. Mercury is equally powerful in checking this, when it occurs in the retina, as in the iris, and the object cannot be accomplished without this remedy, nor without its decided action on the system, while you will be surprised at seeing the beneficial results from the combined result of the antiphlogistic and the mercurial plan. It has so often happened to me to see depletion, even when carried to the largest extent, fail, and vision immediately benefited, and soon restored by the employment of mercury, that on this point I can speak to you with the greatest confidence. A young woman came to the Infirmary, complaining of loss of sight in one eye. The pupil was dilated, the iris motionless; a slight and scarcely perceptible pink tint was observed in the sclerotic, near the cornea; it might have been easily overlooked. Vision was very nearly lost, and had been so for about three days. There was head-ache, a flushed countenance, heat of skin, and whitish tongue. It appeared on inquiry that this patient was cook in a large family, and had been much employed before large fires. I pointed out the case as one of pure retinitis, and as calculated to show whether vigorous antiphlogistic treatment could arrest the affection; indeed, I did not think much at that time of using mercury in such an affection, not having then (now some years ago) that knowledge of its powers in affections of the retina which subsequent experience has given me. I directed a full bleeding from the arm, free purging, low diet, general rest, and repose of the organ. In two days after, she was no better in respect of sight; she was cupped and blistered, but still no improvement took place. The use of mercury was now begun, but vision was completely lost before the remedy produced any effect. The occurrence of full salivation suspended all the symptoms, sight immediately improved, and was completely restored under the continued employment of the remedy.

[The lecturer detailed some other strong cases in illustration of the same point: they proved clearly the inadequacy of the simple antiphlogistic treatment, and the powerful effects of the mercurial plan, when decidedly put in practice, and steadily pursued, in restoring the function of the retina. He observed that some of them were examples of inflammation confined to the retina; originally beginning in that structure, and prevented by active treatment from extending beyond its original seat. They might also be called cases of amaurosis, exhibiting the acute form of the affection.]

A peculiar inflammation affects the posterior parts of the globe, the choroid, retina, and vitreous humour, occasionally involving the sclerotica, either in persons of gouty habit, or of that impaired consti-

tation and general health, which are very analogous to the arthritic state. It ends in a dilated pupil, with deep-seated greenish discolouration, that is in the appearances called glaucoma: it might be called, in contradistinction to the slowly occurring change of similar character, which will be afterwards described, acute glaucoma. Benedict has named it, in consequence of its frequent occurrence in gouty persons, *ophthalmitis arthritica*.

The external appearances of inflammation are often inconsiderable; there is some redness of the sclerotic coat, and this is rather livid than bright; increased sensibility to light in the beginning, and increased lachrymal discharge. In the eye and in the head there is acute, deep-seated, and almost intolerable pain; this is constant, and of the severest kind, entirely preventing rest, and hardly lessened by the most active treatment. The iris is rendered darker and dull, particularly in its pupillary margin; the pupil is dilated and fixed, sometimes assuming an oblong figure in the transverse direction; and a dull green discolouration is observed deep in the eye, indicating change of structure, either in the vitreous humour or retina. Sight is greatly impaired, and often entirely lost, from the very first attack: this loss of sight is frequently very sudden, taking place in the course of a night. From the congestion, which exists in the vascular internal tunics, there is great tension of the sclerotica, giving to the globe the feeling of stony hardness. The disturbance in the sclerotic vessels usually extends to the cornea, rendering it dull; this change, together with those in the iris and pupil, destroys all the brilliance and expression of the eye, making it look almost like a dead eye.

The affection proceeding, extends to the lens, which loses its transparency, turns green, dirty yellowish green, or dirty white. (*Cataracta viridis vel glaucomatosa.*) It is often protruded by swelling of the vitreous humour, wedged into the dilated pupil, and brought into contact with the cornea.

The pain and the redness lessen, and the affection subsides, leaving an iris changed in colour, a fixed and usually dilated pupil, either of a dull green colour, or occupied by a glaucomatous cataract, with total and irreparable loss of vision. The external trunks lying on the sclerotica are enlarged, knotted, and varicose; sometimes there is partial absorption and distension of the sclerotica, giving a blue appearance about the ciliary body, causing small projections in that situation, or the larger distensions which constitute staphyloma scleroticæ.

The disorder generally affects the two eyes in succession, but both may be attacked at once.

The pathology of this affection is imperfect from the want of dissections. We do not know where it begins, what structure is its primary and essential seat. The early and entire loss of sight points out disorganisation of the retina; and the changes occurring in the pupil indicate alteration in the vitreous humour.

The chief cause of the affection is an unhealthy state of constitution; it takes place in gouty persons, and in such as have had other forms of gout. We see it in elderly persons, always after the middle period of life; in those of full habit, of corpulent make, with the bloated, red, purple, and veined faces, that denote habits of indulgence.

It is important to distinguish this affection from cataract; from amaurosis, properly so called; and from common internal ophthalmia.

The prognosis is entirely unfavourable. Where vision is lost in such a case, it is never restored; nay, if the characteristic symptoms are present, we may be tolerably certain that the disease will go on to the extinction of sight, and we cannot prevent it. The disorder is indeed so unmanageable, that treatment has very little effect upon it; the severe pain in the eye and head continues in spite of the most active measures. Loss of blood and other corresponding means must be employed in the beginning. Subsequently, blisters may be employed, with Plummer's pill, mild aperients, and a regulated diet.

LECTURES

ON THE

THEORY AND PRACTICE OF PHYSIC,

BY DR. CLUTTERBUCK.

Theatre, General Dispensary, Aldersgate-street.

LECTURE XXV.

Of the Diseases of the Stomach.

Gentlemen,

FROM the nature of the functions performed by the stomach, the affections of this organ exceed in importance those of the rest of the alimentary canal. The

terior chamber. Suppuration occurs, matter is effused in front of the iris, constituting hypopium; blood is sometimes mixed with it. Now the internal and external tunics are fully involved, and the appearances are those of general ophthalmitis.

The results of such an affection are, closed pupil, with the formation of an adventitious membrane, insensibility of the retina from change of structure, consequent on violent inflammation, large suppuration, making its way externally, and leading to collapse of the coats, contraction and partial obstruction of the pupil, with impaired function of the retina, opaque capsule and lens.

Prognosis.—When disease attacks the nervous structure, in which vision immediately resides, and the pupillary aperture through which light must enter the organ, the case cannot be otherwise than serious, requiring the closest attention, and active treatment. The prospect is favourable in the beginning, and is less and less so, in proportion to the duration. The state of the retina, as indicated by the degree of vision, and the condition of the iris and pupil are the most important criteria. Greatly impaired vision, produced quickly, with pupil still clear, and not much contracted, may be restored. If sight should have been totally lost, before the pupil has closed; or if that opening be much contracted and vision gone, there is no hope. The loss of vision is not altogether discouraging in itself; but it is a bad sign when connected with considerable change in the iris and pupil, great external redness, &c.

The treatment must be the same as in general inflammation of the globe (ophthalmitis) or in iritis; it must be antiphlogistic in the first instance, and this must be followed up by the decided use of mercury, combined with the local employment of belladonna.

It might be expected that the antiphlogistic measures alone would answer the purpose; but this is not the case; they check the disease, they diminish the external redness, the pain and head-ache, and relieve the patient altogether, but they do not improve the sight much; they do not control that excited state of the capillary circulation, which threatens such dangerous results to vision. Mercury is equally powerful in checking this, when it occurs in the retina, as in the iris, and the object cannot be accomplished without this remedy, nor without its decided action on the system, while you will be surprised at seeing the beneficial results from the combined result of the antiphlogistic and the mercurial plan. It has so often happened to me to see depletion, even when carried to the largest extent, fail, and vision immediately benefited, and soon restored by the employment of mercury, that on this point I can speak to you with the greatest confidence. A young woman came to the Infirmary, complaining of loss of sight in one eye. The pupil was dilated, the iris motionless; a slight and scarcely perceptible pink tint was observed in the sclerotic, near the cornea; it might have been easily overlooked. Vision was very nearly lost, and had been so for about three days. There was head-ache, a flushed countenance, heat of skin, and whitish tongue. It appeared on inquiry that this patient was cook in a large family, and had been much employed before large fires. I pointed out the case as one of pure retinitis, and as calculated to show whether vigorous antiphlogistic treatment could arrest the affection; indeed, I did not think much at that time of using mercury in such an affection, not having then (now some years ago) that knowledge of its powers in affections of the retina which subsequent experience has given me. I directed a full bleeding from the arm, free purging, low diet, general rest, and repose of the organ. In two days after, she was no better in respect of sight; she was cupped and blistered, but still no improvement took place. The use of mercury was now begun, but vision was completely lost before the remedy produced any effect. The occurrence of full salivation suspended all the symptoms, sight immediately improved, and was completely restored under the continued employment of the remedy.

[The lecturer detailed some other strong cases in illustration of the same point: they proved clearly the inadequacy of the simple antiphlogistic treatment, and the powerful effects of the mercurial plan, when decidedly put in practice, and steadily pursued, in restoring the function of the retina. He observed that some of them were examples of inflammation confined to the retina; originally beginning in that structure, and prevented by active treatment from extending beyond its original seat. They might also be called cases of amaurosis, exhibiting the acute form of the affection.]

A peculiar inflammation affects the posterior parts of the globe, the choroid, retina, and vitreous humour, occasionally involving the sclerotica, either in persons of gouty habit, or of that impaired consti-

tation and general health, which are very analogous to the arthritic state. It ends in a dilated pupil, with deep-seated greenish discolouration, that is in the appearances called glaucoma: it might be called, in contradistinction to the slowly occurring change of similar character, which will be afterwards described, acute glaucoma. Benedict has named it, in consequence of its frequent occurrence in gouty persons, *ophthalmitis arthritica*.

The external appearances of inflammation are often inconsiderable; there is some redness of the sclerotic coat, and this is rather livid than bright; increased sensibility to light in the beginning, and increased lachrymal discharge. In the eye and in the head there is acute, deep-seated, and almost intolerable pain; this is constant, and of the severest kind, entirely preventing rest, and hardly lessened by the most active treatment. The iris is rendered darker and dull, particularly in its pupillary margin; the pupil is dilated and fixed, sometimes assuming an oblong figure in the transverse direction; and a dull green discolouration is observed deep in the eye, indicating change of structure, either in the vitreous humour or retina. Sight is greatly impaired, and often entirely lost, from the very first attack: this loss of sight is frequently very sudden, taking place in the course of a night. From the congestion, which exists in the vascular internal tunics, there is great tension of the sclerotica, giving to the globe the feeling of stony hardness. The disturbance in the sclerotic vessels usually extends to the cornea, rendering it dull; this change, together with those in the iris and pupil, destroys all the brilliance and expression of the eye, making it look almost like a dead eye.

The affection proceeding, extends to the lens, which loses its transparency, turns green, dirty yellowish green, or dirty white. (*Cataracta viridis vel glaucomatosa.*) It is often protruded by swelling of the vitreous humour, wedged into the dilated pupil, and brought into contact with the cornea.

The pain and the redness lessen, and the affection subsides, leaving an iris changed in colour, a fixed and usually dilated pupil, either of a dull green colour, or occupied by a glaucomatous cataract, with total and irreparable loss of vision. The external trunks lying on the sclerotica are enlarged, knotted, and varicose; sometimes there is partial absorption and distension of the sclerotica, giving a blue appearance about the ciliary body, causing small projections in that situation, or the larger distensions which constitute staphyloma sclerotica.

The disorder generally affects the two eyes in succession, but both may be attacked at once.

The pathology of this affection is imperfect from the want of dissections. We do not know where it begins, what structure is its primary and essential seat. The early and entire loss of sight points out disorganisation of the retina; and the changes occurring in the pupil indicate alteration in the vitreous humour.

The chief cause of the affection is an unhealthy state of constitution; it takes place in gouty persons, and in such as have had other forms of gout. We see it in elderly persons, always after the middle period of life; in those of full habit, of corpulent make, with the bloated, red, purple, and veined faces, that denote habits of indulgence.

It is important to distinguish this affection from cataract; from amaurosis, properly so called; and from common internal ophthalmia.

The prognosis is entirely unfavourable. Where vision is lost in such a case, it is never restored; nay, if the characteristic symptoms are present, we may be tolerably certain that the disease will go on to the extinction of sight, and we cannot prevent it. The disorder is indeed so unmanageable, that treatment has very little effect upon it; the severe pain in the eye and head continues in spite of the most active measures. Loss of blood and other corresponding means must be employed in the beginning. Subsequently, blisters may be employed, with Plummer's pill, mild aperients, and a regulated diet.

LECTURES

ON THE

THEORY AND PRACTICE OF PHYSIC,

BY DR. CLUTTERBUCK.

Theatre, General Dispensary, Aldersgate-street.

LECTURE XXV.

Of the Diseases of the Stomach.

Gentlemen,

From the nature of the functions performed by the stomach, the affections of this organ exceed in importance those of the rest of the alimentary canal. The

diseased states to which it is liable, are various; some consisting in inflammation; some, in spasm; and some, again, being merely functional. The distinguishing accurately between these, in practice, is of considerable moment. Further, you are to observe, that the stomach is frequently disordered in a secondary way, or by sympathy with other organs, the diseased state of which it sometimes serves to indicate; and this is more especially the case with regard to the brain, between which and the stomach there exists the most intimate and reciprocal connexion.

The stomach is not only a *vascular*, but a *muscular* structure. It has a large share of *irritability*, and on this account is easily excited into disorder. It possesses also *sensibility* in no small degree, though its feelings are of a peculiar kind. It is hardly sensible, for example, to heat or cold; yet it may be disordered by either. The sensations of hunger and thirst, of satiety, of nausea, and that derived from the taking of substances agreeable to the palate, with perhaps many others that have not been well defined, belong to the stomach, which indeed may almost be considered as a sixth organ of sense. This will serve to explain, in some degree, the great influence which the stomach, in common with the other *organs of sense*, exerts over the brain, and *vice versa*.

Lastly, the stomach has (next to the brain) the greatest influence over the whole system, and thus becomes the fittest medium in general for impressing other parts beneficially, when they are labouring under disease; whence it is, chiefly, that our remedies are mostly applied to this organ.

The most important disease of the stomach, as of other parts, is inflammation, which may exist in various degrees, acute or chronic. It may affect the internal coat, or mucous membrane, merely; or the general substance of the organ; to which last alone, when acute, the term *gastritis* has been applied. Inflammation of the external coat, which is only an extension of the peritoneum, requires no distinct notice.

1. *Inflammation of the mucous membrane* of the stomach (cardialgia.) This is, for the most part, a slight affection, characterized by a sense of heat, or scalding, in that region, and which is increased by swallowing any thing hot or acrid. It is attended also with acrid eructations, and sometimes with a copious flow of thin and tasteless fluid from the fauces. The tongue is white on its surface. The terms *cardialgia*, or *heart-burn*, and *pyrosis* or *water-brash*, have been applied to this disease. It is commonly induced by too stimulating food or drinks, or by other acrid substances. The treatment of it, in general, is very simple, consisting in the use of cold drinks, and mild purgatives, with the avoidance of the cause, whatever this may be.

2. *Gastritis.*—When the substance of the stomach is inflamed, and that in an acute degree, the disease is termed *gastritis*.

This organ, however, is less frequently the subject of inflammation than many others; the reason of which, perhaps, is, that it is habitually exposed to a great variety of impressions, in consequence of which, its susceptibility is impaired.

Symptoms.—The disease is marked by acute and burning pain at the pit of the stomach, and which is increased upon pressure. There is often soreness in the skin; and sometimes hardness and swelling in the epigastric region. The increased irritability of the organ, (the natural consequence of inflammation,) gives rise to vomiting, which is frequent and severe, and that even without any thing being taken in. After a time, bile is thrown up. Hiccup frequently takes place, and occasions an aggravation of the pain. There is also great general disorder of system. The pulse is quick, small, and hard; showing increased irritability of the heart and arteries. The tongue is white, yellow, or brown, according to the violence and danger of the disease. The urine is scanty and high coloured; and, in some cases, totally suppressed. There is a feeling of anxiety, with great depression of general strength.

This disease is often rapid in its progress, and speedily fatal, terminating then usually in gangrene. If less violent, it may continue for many days; and now and then it ends in abscess. The approach of gangrene is marked by the sudden cessation of the pain, the vomiting and other bad symptoms continuing. The pulse is scarcely to be counted; cold sweats appear on the forehead; the extremities turn cold; there is an anxious countenance; and delirium ensues, which soon terminates in death.

The *Causes of Gastritis* are various; as *exposure to cold*, especially *cold drinks*, taken when the body is heated; mechanical violence; acrid and poisonous substances of various kinds swallowed, especially *arsenic*, *corrosive sublimate*, the *tartarized antimony*, and the *concentrated acids*, with many others. *Metastasis*, or the shifting of inflammation from other

parts, may also be enumerated among the causes of this disease. It likewise frequently arises during the course of *fever*, especially in hot climates, and is then often accompanied with the symptom termed *black vomit*.

The *prognosis* in *gastritis*, is, upon the whole, unfavourable; but is influenced of course by the violence, and in some measure by the cause of the disease. When the inflammation is very acute, it is quickly fatal, and that for the most part by ending in gangrene, as I remarked before. If milder and protracted, it may terminate in abscess, from which a recovery is not uncommon. Some persons suffer frequently in this way. When inflammation of the stomach occurs in *fever* in hot climates, it is generally fatal. When from *metastasis*, the danger is less.

Treatment.—The first point you are to attend to, is the removal of the cause, if still acting, as in the case of poisons swallowed. With this view, vomiting should be promoted; for which, however, nothing in general is necessary, but a copious exhibition of any mild and warm liquid. Water alone, is as good as any other; except, perhaps, that *oil* may be more readily rejected by vomiting. It is seldom necessary to exhibit *emetics* for the purpose, the disposition to vomit being already excessive in most cases. You are to consider also, whether any thing can be done to counteract the noxious substance, either chemically or mechanically. In the case of *arsenic*, nothing of this kind can be done that promises the least advantage: the quick discharge of the poison is the only thing to be looked to. *Corrosive sublimate* and *tartarized antimony*, may be decomposed by *alkalies*, and their virulence in some degree thus lessened. The *concentrated acids*, whether the *sulphuric*, *oxalic*, or any other, may be neutralized by any alkaline matter, (with the exception of ammonia, which is too irritating); potass, soda, magnesia, chalk, an infusion of wood ashes, or a solution of soap in water, will either of them answer the purpose. But in general, fatal mischief is done to the organ, before such means can be administered.

When the *cause* has thus been sufficiently attended to, you are to endeavour to remedy the *effects*. The irritation should be first allayed by opium; and then the inflammation obviated as far as possible by *bloodletting* and other means; taking care, however, not to employ *bloodletting* with too great freedom, but considering the state to which the strength of the system may have been reduced by the violent action of the poison. In spontaneous *gastritis*, arising from so simple a cause as *cold*, *bloodletting* requires to be performed with great promptitude and freedom. In cases proceeding from metastasis, it is generally right at the same time to endeavour to renew the primary affection, whatever this may be; as by stimulating the extremities, in cases of gout or rheumatism. When the disease arises in the course of *fever*, the treatment will be governed by the stage of the disease, and will be more or less active accordingly. If the inflammation should have terminated in suppuration, which is known by the discharge, by vomiting, (and often downwards,) of purulent matter in large quantities, frequently mixed with blood, all that can be usefully done is to pay attention to the general health. Food of the simplest and mildest nature should be employed.

3.—*Chronic inflammation of the stomach, (schirrus of the pylorus.)* The stomach is occasionally the subject of a chronic kind of inflammation, which gradually injures the structure of the part, and at length terminates in complete disorganization; this state is usually termed *schirrus*, the immediate seat of which is, in most cases, the *pylorus*. It arises for the most part imperceptibly, and from no obvious cause.

The *signs* of this affection most to be relied upon are, a constant uneasiness in the region of the stomach, with a sense of heat and tenderness, and often hardness to the touch externally; these are commonly aggravated after taking food. The appetite is deficient, and there are the ordinary signs of imperfect digestion. There is *pyrexia*, or general febrile symptoms. As the disease advances, the distress of the patient is increased. The food, after remaining for an uncertain time in the stomach, is again rejected by vomiting. There is likewise thrown up, from time to time, in the latter stages of the disease, purulent, sanious, or bloody matter, often of an offensive smell. Costiveness takes place, owing principally to the want of materials in the intestinal canal. The body becomes more and more emaciated, and is at length (after perhaps many months' continuance) worn out and destroyed, partly by the general disorder excited by the local disease, and partly by the want of nourishment.

Treatment.—This disease is scarcely within the power of art to cure it, and indeed it generally proves fatal. The only treatment likely to prove successful, is the *antiphlogistic*. In an early stage of the disease, small and repeated bleedings,

with aperients of the mildest kind, appear to be the best adapted to the nature of the case, as being founded in inflammation. An issue at the *scrobiculus cordis*, may be of some use. Small quantities of mercury, with hemlock, have been employed; but, as far as I have observed, with little or no advantage. *Opium* may be necessary to relieve pain, though it has no tendency to cure the disease. The food should be of the simplest kind, and mostly liquid. Milk is probably the best. You are to take especial care, not to confound this disease with mere *dyspepsia* or *indigestion*; for the means commonly employed to relieve this, namely *tonics* and *stimulants*, will be sure to aggravate organic disease.

4. *Spasm of the stomach.* This is not an unfrequent occurrence, especially in females. It is productive of very severe pain while it lasts, the seat of which is the hollow of the stomach. The technical term *gastrodynia*, and some others have been applied to it. It is occasioned by different causes; as flatulency, the presence of acid in the stomach, cold drinks taken too freely, unripe fruits, and various other irritating causes, irritation of neighbouring parts, as the passing of gall-stones through the biliary ducts, and lastly, mental emotions.

Spasm of the stomach must be carefully distinguished from inflammation, on account of the great difference in the remedies required in the two cases. The distinction chiefly rests on the absence of the signs of inflammation, namely, heat and tenderness upon pressure, together with febrile symptoms. In simple spasm, there is generally coldness; while pressure gives relief.

Spasm of the stomach is in general readily relieved by active stimulants of all kinds, applied both internally and externally. Heat, alcohol, æther, ammonia, the essential oils, camphor and opium, are the principal remedies. The *warm bath* is also a powerful means of relief. To prevent the recurrence, is an object of greater importance than temporary relief; to accomplish which the cause must be looked to and avoided, as far as possible. It often happens, that inflammation follows spasm; when this occurs, the plan of treatment must be changed. Bloodletting, and other antiphlogistic remedies may then be required.

5. *Of dyspepsia* or *indigestion.* The functions of the stomach are frequently disordered, or imperfectly performed, independent of inflammation; and to such states the term *dyspepsia* or *indigestion*, is applied. The symptoms that present themselves in this case are various, and have been designated by a great variety of terms, which it would be tedious even to enumerate. They can only be understood by reference to the nature of the organ and its functions.

The stomach is *muscular*, to enable it to propel its contents into the duodenum. Hence its liability to violent and permanent contraction, or *spasm*, as before observed. Its natural movement, which is in the direction from above downwards, may be inverted, when the contents will be discharged upwards through the œsophagus, an act called *ructus* or *rumination*, similar to what takes place spontaneously in the bullock and some other animals. This, however, is not *vomiting*, for *vomiting* requires the concurrent action, (and that a violent and involuntary one,) of the diaphragm and abdominal muscles. If this violent action of the diaphragm and abdominal muscles, take place without a simultaneous inverted motion of the stomach itself, there is an ineffectual straining to vomit, without the actual discharge of the contents of the stomach, and which is productive of much distress. The muscular action of the stomach may likewise be defective, or even paralysed altogether; at least, it is reasonable to believe this, from the analogy of other muscles. The consequence, in either case, must be an unnatural detention of the food in the stomach. Should the muscular action of the organ be in excess, the reverse of this would take place; the food would be discharged into the intestines, before time was given for its undergoing the necessary changes in the stomach. Such would be the natural effect of an excess of irritability in the organ, a state that we can easily conceive to exist.

The proper function of the stomach is two-fold; consisting first, in *appetite*, or a desire for food; and, secondly, in *digestion*, or the conversion of it into a new substance termed chyle, for the purposes of the system; for no substance, whether animal or vegetable, neither *milk* nor even *blood* itself, can be applied as nutriment to the body, till it has undergone the process of digestion in the stomach, by which its properties are essentially changed.

In health, *appetite* and *digestion* are generally proportioned to each other; but it is not always so in disease. The appetite is sometimes greater than the power of digestion; as, in other cases, the power of digestion remains to a certain extent, where the appetite is wholly or nearly lost. In general, however, the appetite, if not manifestly depraved, may

be taken as an indication of the digestive power. So that where food of a natural and simple kind is eagerly desired, either in health or in disease, it will seldom, I believe, be found injurious to exhibit such. And we have abundant instances to prove, that indulgence in a variety of foods that, *a priori*, would be considered improper, has nevertheless been allowed, not only with impunity, but with advantage. In actual practice, however, you should always act upon such suggestions with reluctance, and not without much consideration. It is worth observing, that, on some occasions, the taking of food restores appetite, which before was entirely wanting. This is often seen at the close of acute diseases, where, from long and rigid abstinence, the appetite wholly ceases, but is renewed as soon as food begins to be again taken. We are not always to wait, therefore, for the return of appetite, but rather to try whether the disposition to take food may not be lost merely from disuse. As appetite may be safely indulged, under the restrictions mentioned, I may observe, on the other hand, that food that is ungrateful to the taste is seldom well digested.

The *appetite* may not only be defective, (called *anorexia*,) as it indeed is in a vast number of diseases, especially the acute, but may be otherwise variously altered from the healthy state. It may be simply in excess, a state that has been called *cynorexia*, *bulimia*, &c.; or it may be depraved, as shown by a desire for unnatural things (*pica*). These changes of the appetite, may be considered as the result of morbid states of sensibility in the stomach, frequently proceeding from affection of the brain: for in most of the *acute* diseases of this organ, (the brain,) the appetite is wholly lost; while in many of the *chronic* affections of the same organ, the desire for food is voracious; as you will observe in many cases of *hemiplegia*, and others. And there is no doubt, that many instances of depraved appetite may be referred to the same source.

The connexion between the brain and the desire for food, is strikingly shown in the effect of *mental emotions* in immediately destroying appetite, sometimes inducing actual vomiting.

We will next, Gentlemen, attend to the subject of *Digestion*, or the conversion of the food into chyle, an operation that is principally effected in the stomach, though the *hepatic* and *pancreatic* fluids contribute to the completion of the process.

Now *digestion* is a kind of chemical solution of the food in the *gastric juice*, as it is termed. This menstruum (the gastric juice) is formed or secreted by the inner membrane of the stomach, or some part of it, and of course is liable to vary in its properties, and consequently in its *solvent* powers, according to the state of action in the secreting organ. This action, again, will vary under a variety of circumstances: but we know nothing of such changes directly, and only judge of them by the state of the function itself.

The *digestive* function is, in many persons, at all times ill or imperfectly performed: the defect, in such cases, is said to be *constitutional*, and can hardly be remedied by art. It is impaired, likewise, or even altogether suspended, during the course of a great number of diseases; as if the body did not require to be nourished under such circumstances. *Over-excitement* of the stomach by food or drinks, of too stimulant a quality, or excess in point of quantity, is another, and probably the most frequent cause of *dyspepsia*, or *indigestion*; the first effect of such excess generally is, to increase both the appetite and the power of digestion; so that, in fact, the body is for a time better nourished, and even appears to acquire additional strength in consequence, and likewise a greater freedom from disease. These advantages, however, (if they be such,) are but temporary; because over-excitement of all kind, leads to exhaustion of real power. The digestive function is at length imperfectly performed, and the body suffers in consequence; in addition to which, disease of some kind, mostly inflammation, is frequently the result; either in the stomach itself, or in the liver, the ligamentous structure, or the brain, according to the disposition to disease in particular organs.

Indigestion, again, may be owing to the improper nature of the substances taken as food. Lastly, all the causes that tend to impair the appetite for food, are capable, more or less, of disturbing the digestive power of the stomach.

Now when food is taken under the circumstances mentioned, that is, where the stomach is not in a condition to digest it, a variety of morbid changes take place, which constitute the symptoms of *dyspepsia*, and which you will easily understand.

Nausea is one of these, and may be followed by actual *vomiting*—a desirable occurrence, as, by removing the cause, it tends to prevent other more distressing symptoms. If the aliment taken in be of an *animal* nature, instead of undergoing the natural changes, it will go into *pu-*

trefaction, producing *nidorous eructations*; if *vegetable*, fermentation will take place, with the extrication of elastic fluids, and, subsequently, the production of *acidity*. The *flatulency* thus generated will often give rise to spasmodic contraction of the organ, attended with severe pain (*gastrodynia*); while the acid generated is sometimes sufficiently acrimonious to excite a burning sensation at the *cardia*, and along the whole tract of the œsophagus (*cardialgia*.)

The state of stomach now described, besides being attended with the strictly-local symptoms mentioned, is capable also of disordering the heart by sympathy, so as to make its action irregular for a time, as indicated by palpitation and by irregular pulse. Sometimes, the diaphragm is convulsively affected, hiccuping taking place. That a dyspeptic state of stomach is likewise capable of occasionally disordering the brain, I shall not deny; but you will meet with a great deal upon this subject in modern writings, that has no foundation either in fact or reason. Nine times in ten, where the brain and stomach are simultaneously disturbed, the stomach is secondarily, and not primarily, affected: the dyspeptic symptoms are the effect, and not the cause of the brain affection. The influence of the brain, when disordered, over the stomach, is a matter of daily observation. In fact, the brain is hardly ever materially diseased, without some interruption or disturbance of the digestive functions. But the converse of this, is not observed to any thing like the same extent. We find the stomach disordered in a thousand instances, without the brain at all suffering in consequence. The most acute inflammation in the stomach, as well as the entire disorganization of it, frequently exist without the brain appearing to suffer at all. And the stomach may be artificially disordered in the highest degree, as by *emetics*, with little or no disturbance of the functions of the brain. The mode of reasoning employed to establish the supposed dependence of many diseases upon a previous disorder of the stomach, is extremely futile and unphilosophical.—Because an *emetic*, or a *purgative*, (or a *blue pill* acting as such,) relieves the head-ache or other symptoms present, it has been, without hesitation, concluded that the *cause* of the disease was seated in the stomach or other chylopoietic organs. This has been carried, in many cases, to a ridiculous length. The most ordinary case of *ophthalmia*, has been so considered and explained, and the proof offered in support of the opinion has been seldom any thing more than the removal of the inflammation by means operating upon the stomach and intestinal canal; as if the good effects of an *emetic*, or a *purgative*, or a *blue pill*, in cases of inflammation, could be no otherwise accounted for than by supposing them to remove something noxious from the *primæ viæ*, or to *correct* and *regulate the secretions* (to use the language of the day). You have not forgotten, I trust, the principle of *counter-irritation*, so often referred to, a principle which is quite adequate to explain the good effects of such remedies, without admitting the unproven supposition of their acting merely by restoring the *secretions* to a healthy state.

Treatment.—In the management of *dyspeptic* cases, it is of far greater consequence to advert to the *cause*, and to remove this, than to endeavour to relieve the *symptoms* by drugs of any kind. In by far the greater number of instances, *dyspepsia* is a secondary affection, and then seldom requires attention in practice. An attempt to restore appetite and digestion, when suspended by other diseases, would in general be injurious. In cases where the power of digestion is naturally weak, which, as I observed, occurs in many individuals, care must be taken to adapt the food to the existing powers of the stomach, so as not to give the organ more to perform than it is equal to. When *over-excitement* and excess have been the remote cause of dyspepsia, the only rational treatment consists in the resort to a simple and abstemious mode of living. The doing this is, for a time, attended with no small feeling of distress to the patient, arising from the deprivation of an accustomed stimulus. The sacrifice, however, must be made, or the case abandoned; for medicines of any kind afford a very insufficient substitute, though they may relieve the symptoms to a certain degree. If the disease be owing to the use of unwholesome or improper food, the remedy is obvious.

With respect to the medicines to be employed in *dyspepsia*, these will vary according to the object in view, and the nature of the symptoms present. The simple *bitters*, such as gentian and quassia, have often a remarkable effect in restoring *appetite*, and in promoting *digestion*. A similar property is possessed, though perhaps in an inferior degree, by the whole tribe of *astringents* or *tonics*. Diluted *acids*, especially those termed mineral, may be often employed with advantage, for the same purpose. *Stri-*

stimulants of various kinds, as wine, spices, and even alcohol, are occasionally useful; but require to be used with great moderation. They ought, indeed, to be looked upon rather in the light of *palliatives*, than as *real remedies*, and in most cases had better be avoided. *Flatulency* and *spasm* may be so urgent, as to call for the most active *stimulants*; such as *ammonia*, *ether*, and even *opium*: but such remedies are only to be justified by necessity, as they are apt to leave the stomach in a less favourable state afterwards.

Acidity of stomach may be counteracted by *alcalies* of various kinds; *potass*, *soda*, *ammonia*, *lime*, or *magnesia*, may be administered for the purpose, and that either in the *pure* or the *carbonated* state. The choice among these, will be determined by circumstances. If the stomach affection should be accompanied, as is usually the case, with *costiveness*, the *magnesia* would have a preference; if, on the contrary, *diarrhœa* should be present, and that in an inconvenient degree, the other alcalies, especially the *carbonate* of lime, will be better. *Ammonia* has the advantage of a powerful stimulant operation (supposing this to be required) by which the organ may be excited, at the same time that the *alcali* acts as an *antacid*. You are not to forget, in the employment of antacids of all kinds, that you are only relieving a *symptom*, which will continue to recur, as long as the digestive process is imperfectly performed.

You perceive, gentlemen, that I have been very brief on the subject of remedies in *dyspepsia*; because I think it more useful to explain the general principles that are to guide you in practice, than to dwell upon particular forms of medicine. Volume after volume have been written on the subject of *dyspepsia*; but what is really important and useful, lies within a narrow compass.

In our next Lecture we shall consider the affections of the *intestinal canal*.

FOREIGN DEPARTMENT.

GRAEFE AND WALTHER'S JOURNAL FUR CHIRURGIE, &c., 1826.

On Salivary Concretions, by Prof. Ph. F. Walther.

Stony concretions are well known to be deposited from the saliva as from others of the animal juices. Fourcroy says, that salivary concretions are composed of phosphate of lime and a peculiar animal substance, (the medium of union,) and that they are formed when the saliva is supersaturated with the above earthy salt. It is difficult to conceive how and under what circumstances such a supersaturation of so limpid a fluid as the saliva can happen; the explanation therefore is far from satisfactory, and cannot be brought to the test of direct experience. Salivary concretions may lodge in the whole length of the ducts destined to excrete the saliva. Examples of such depositions occurring in the substance of the parotid, in the rudimentary branch of Steno's duct, in the course of this duct itself, in the submaxillary gland, and in its excretory passage, are related by very many authors. These interesting forms of disease, however, have not hitherto been regarded in a therapeutical point of view. Perhaps I may be so fortunate as to throw some light upon the subject, by making known a few of the cases which I have met with myself.

Concretion cut from Wharton's Canal.

Elizabeth Hingen, a stout, healthy, peasant girl, sought my professional assistance, on account of a fistulous sore in the upper part of the left side of the neck, in the vicinity of which, a hard and rather moveable body could be felt with the probe. She had had no complaint, except small pox, for a long time, nor could she assign any reason for the invasion of her present malady, which commenced in the following manner:—About three years ago, a painful swelling appeared under the tongue of the left side, which was particularly troublesome at meals, and which, after three days, when it had got to the size of a hazel nut, burst and discharged a considerable quantity of matter. The discharge was not effected through the natural opening of Wharton's duct; the mark of the preternatural orifice can still be perceived by the side of the former.

Within six months, another tumour, precisely similar in all respects, formed, and also discharged as the first had done. The suppuration continued long, but at length it ceased, and this abscess also healed up. Between the scars of these two openings lies the orifice of the Whartonian canal, into which a fine probe can easily be passed to the depth of two lines. Some time after the cicatrization of the second internal abscess, a very painful and rather considerable swelling appeared externally, at no great distance from the left angle of the jaw, which, by the application of warm cataplasms, pointed, broke, and discharged a very large quantity of pus. This abscess had remained fistulous ever since, and the external opening already mentioned led into its cavity. The patient had tried innumerable varieties of salves, plasters, and injections, to heal the fistula, but in vain. The probe passed into the fistula, struck at about the depth of an inch upon a hard resisting body, with a rough surface, and slightly moveable. I could form but very uncertain conjectures in regard to the true nature of this body. Its presence, however, in the posterior part of the fistula, was the reason either of its first formation, or else of its long continuance. As the patient begged for any, the speediest means of getting rid of her ailment, and the removal of the foreign body from the bottom of the sore being the first and most necessary step to such a consummation, I proceeded forthwith to lay open the track of the fistula. This operation I performed with a straight, narrow, and probe-pointed bistoury. In the incision, the external maxillary artery was of necessity divided. The bleeding from this source was at first violent. On account of the deep situation of the vessel, it could not be come at and tied; the bleeding, however, was readily commanded by the pressure of the finger.

After enlarging the incision, the foreign body was laid hold of, but not without difficulty, by a pair of slender forceps, and extracted. It was a salivary concretion, of an elongated form, half an inch in length, and presenting a rough encrusted surface.

I put a uniting bandage and compress over the wound, and the patient was removed into bed. The dressings, however, had to be taken off within half an hour, for the hæmorrhage recurred. A piece of sponge was then placed in the wound, which remained till the beginning of the fourth day, when it was removed. The bleeding did not again appear. In fourteen days, the wound had cicatrized completely, without a single untoward accident having interrupted the progress of the cure, and the patient since that time has remained perfectly free from complaint.

II. *Salivary Concretions voided from the Duct of Wharton.*

Count L. v. St. G., a man 46 years of age, who had suffered repeatedly from catarrhal and rheumatic affections, and diseases of the liver, had, since his 19th year, been troubled with a very hard swelling of the submaxillary gland of the left side. This swelling appeared without any known cause; it was declared of a scrofulous nature, although the gland affected did not belong to the lymphatic system, and the patient had not in his youth suffered from any kind of scrofulous malady. With the idea of discussing the swelling, a variety of poultices, salves, and plasters, had been at different times applied to it. The enlarged gland felt as hard as a true schirrus; and I should myself have pronounced it of a cancerous nature, and advised its immediate extirpation, but for the occurrence of one phenomenon, which, in true schirrus, is never known to happen, to wit, a great variety in the size of the gland at different times, for it decreased without any evident cause, and even disappeared entirely, and then it increased again till it frequently attained the size of a hen's egg, when it became extremely tender to the touch, obstructed the free movement of the lower jaw, and greatly impeded deglutition. The application of leeches and of cataplasms externally, and of vapour to the part, did very little good; one morning, however, I found the swelling considerably diminished in size; the patient felt himself more at ease, the pain was less severe, and the deglutition easier. On examining the cavity of the mouth, I discovered a foreign body lying under the tongue, which, strangely enough, had not been perceived by the patient. I found, as well from its appearance as from after observation, that it was a salivary concretion, which had been formed in the submaxillary gland, and came into the mouth by Wharton's canal.

The patient never remarked that any similar concretions had been voided under like circumstances before. It is very possible, however, that small concretions may have been swallowed or spit out without the notice of the patient. On the present occasion, he was much astonished when I announced the presence of such a foreign body to him. His attention once called to the subject, he now re-

membered that he had frequently observed a small pointed blister under the tongue, which, becoming painful, had always broken on the second or third day, and been followed by a clear and mucilaginous discharge. He had never, however, so far as I could understand, suffered from a proper rannia.

After the expulsion of this concretion, the swelling of the submaxillary gland decreased from day to day; the part, however, still remained hard, and I from this suspected that there were yet many concretions in the radicules of the duct, which traverse the substance of the gland. Some months after the expulsion of the first, the patient voided another salivary concretion, whose derivation from the gland, passage through the duct, and arrival in the mouth, he duly observed on this occasion.

The submaxillary gland still continued for a long time enlarged, and somewhat harder than natural to the touch. Of late, however, it had certainly declined both in magnitude and hardness. My attention was now turned to the finding of some means of preventing the formation of any new calculous concretions in the branches of the excretory duct of the submaxillary gland, and thus of getting rid of the disease completely; and this, to my own and my patient's entire satisfaction, I discovered in the carbonate of soda taken internally. These alkaline salts I had for a long series of years recognized as most powerful agents against the formation of calculi in the kidneys. I had also employed them successfully against the disposition to calculous concretions between the eye-ball and eye-lid; and as the origin not only of urinary calculi, but of all other animal concretions, depends certainly on the presence of peculiar acids mixed with the animal juices, analogy did not fail to lead me to attack the disposition to salivary concretions, by means of the same class of remedies; and my success here has confirmed me still more in my persuasion, that the alkalies have a truly specific virtue against the disposition to calculous formations generally.

Count L., for more than six months now, has taken about gr. xii. of carbonate of soda dissolved in mint water, daily; and during this time no further formation of salivary concretions has taken place; the swelling of the submaxillary gland too declined gradually, and is at present entirely gone, having returned to its natural size, and being totally free from pain or uneasy feeling of any kind. As the operation of the alkali against the formation of calculous concretions is, I conceive, momentary only, and not lasting, as it does nothing against the disposition or diathesis, and as this is not to be destroyed when it has once been contracted, but only opposed in its effects, I hold that, in the case which now engages our attention, the use of the alkaline solution will be required for a very long time, for many years, in order to prevent the disposition of any new concretions in the rudiments of the excreting duct of the submaxillary gland.

Caries and Swelling of the Knee, treated by the outward use of the muriate of mercury. By Pro. Walther.

The cures effected in many severe and seemingly hopeless cases of disease, by my esteemed friend Dr. Wedekind, by means of the muriate of quicksilver, do not seem to me to have attracted so much of the attention of medical men as they deserve. I have myself confirmed his statements, in regard to the efficacy of the sublimate bath in obstinate cases of cutaneous spots approaching lepra in their characters. By the same means I have also got the better of herpetic eruptions which had resisted every other curative plan. I am further acquainted with a case of rheumatic swelling of the knee, conjoined with caries, which was successfully treated without anchylosis of the joint, by the external application of a solution of the sublimate; I saw the child in May, 1824, at Auerbach, and found a fistulous sore of the knee, with caries of the inner condyle of the thigh-bone. On my return to the same place in September following, the little patient was completely well. The history of the case is as follows:—The child, a girl of 12 years of age, of a delicate habit of body was attacked in the spring of 1825, with a rheumatic fever, with spasmodic pains of the organs of the chest, of the parts about the temples, and of the shoulder blade, and knee-joint of the right side. The ordinary measures soon cut short the general disease, but the pain in the knee-joint continued, and even increased every day; all the prescriptions, bathing, blistering, and frictions, of the family surgeon proving of no avail against its severity. Whilst these means were pursued, a swelling appeared on the left side of the knee, and increased so rapidly, that in a few days, walking became impossible, and the articulation measured twice as much in circumference as in the natural state. The pain was now less severe; the swelling was not very hard, but the skin over it was greatly distended and slightly inflamed.

Dr. Wedekind saw the patient for the first time now, about four months after the invasion of the primary disease. The knee was ordered to be moistened twice a-day, with a solution of ʒss. of mur. hydrarg. in lb. aq. distil. and the patient took about half a grain of the same salt daily. For three weeks there was very little change observable in the state of the knee joint, and the dose of the sublimate, internally, was increased to ½ of a grain. In about a fortnight more, the swelling began to grow softer, redder and more painful. To relieve the pain the lead-plaster was applied over the inflamed parts; and as the month began to be affected, the use of the sublimate, both externally and internally, was suspended, and the patient began to take sulphur in the dose of about ʒii. daily, which had the effect of speedily stopping the salivation.

The swelling at this time appeared more circumscribed; several particularly soft points indicated the progress of abcesses, and there could now be no doubt of the existence of caries. The child complained little of pain, but she still found the greatest difficulty in walking. The disease now appeared to be completely local, and was therefore treated in this view. Asafœtida plasters were applied, and in three weeks the abscesses, two in number, burst and discharged about ʒxii. of yellow inodorous matter, when the knee immediately regained its natural size and form. A fresh plaster, with two holes in it, was applied to the part, and a pledget of lint, dipped in a solution of xii. gr. mur. hydrarg. in ʒiv. aqu. distil. bound lightly over it twice daily. Within a few days the lesser sore closed up, and cicatrized; the larger, however, continued open for six months, discharging about half an ounce of pus daily. After this time, it also healed up, and at present the knee is of the natural form, the motion of the joint is entire, and, bodily and mentally, the patient enjoys the most perfect health.

Anatomical Society of Paris.

The inauguration of this society took place on the 12th of January, 1826; M. Cruveilhier, Professor of Anatomy to the School of Medicine, being in the chair, that gentleman opened the meeting in the following speech:

Gentlemen, the anatomical society which we are appointed to re-establish was originally founded in the 12th Frimaire, an xii. (Dec. 3, 1803), in the very heart of the *ecole pratique*, by M. Dupuytren, then director of the travaux anatomiques. Composed of the best elèves of this school, and encouraged by the faculty, which put within its power all means of instruction, this society soon obtained a distinguished place among the most learned of the day. Already the title of member of the 'Societé Anatomique' had become one of the highest merit, and the account of its proceedings were sought after with that avidity which marked the general tendency of the mind after things capable of demonstration, when the death of some of its most active members, of Tilorier, Pitet, Marandel, and especially the want of concentration and of unanimity, entailed its total ruin after five years' existence.

The study of the organization, either in the healthy or morbid state, the physiological and pathological functions, in their connexion with organic life, were the objects of investigation pursued by the former, and will be alike those followed by the present society. A society composed of select elèves, of students arrived at that period of their medical studies when they no longer blindly follow the words of their instructors, and all animated with that noble spirit of independence which stoops only to truth; a society, I repeat, composed of such materials was wanting in the scientific world, and its want was never more felt than at the present moment. We see, indeed, pathological anatomy proclaimed as the basis of practical medicine, and, notwithstanding, this branch of medical science remains stationary. When the words 'tubercles, scirrhous matter, encephaloids, organic degenerations,' &c. are made use of, every thing is supposed to have been said, whilst in reality they are merely vague and general terms, reflecting but little light on the diagnosis and treatment of disease. Pathological anatomy is one of those sciences in which names have been given to the principal objects within its sphere, and respecting which multiplied facts have been collected; but alas! how few of them have been thoroughly investigated. What remains for us to do is to class these facts in such a manner as to be able to draw from them general laws, which as a whole may deserve the name of a science. For, be assured, if employing ourselves constantly with the same subject, and if with the innumerable dissections which are made in all directions, we arrive at no result, the detractors of the value of morbid anatomy will renew their attacks, and may perhaps obtain a dreadful triumph. But what inexhaustible treasures are opened to us, by the right use of which this calamity may be averted. All the organic alterations observed in

the pavillons of the *ecole pratique* will be submitted to us for inspection, and lastly, an account of every thing interesting in morbid anatomy, met with in the different hospitals of this metropolis, will be transmitted to the society. In possession of these numerous opportunities, it is our intention to propose a successive series of problems on the obscure points of physiological and pathological anatomy, principally, however, on the anatomy of texture, a solution of which will make us acquainted with the immediate seat of disease, and afford us the key to those atomic or particular phenomena that are constantly taking place in the animal economy.

But the study of organic lesion is useful no farther than it leads to an improvement in practice, and on this account the Society will collect with greater pleasure those specimens of pathological anatomy which may be accompanied with the history of the case from which they were taken. Each fact shall be submitted to the criticism of the members of the Society, by which their different opinions will be elicited, and the various cases thus elucidated. These few observations are, I trust, sufficient to impress on your minds the importance of the society, and the benefits which science has a right to expect from its labours. As for myself, Gentlemen, who are advanced a few years more than you in anatomical pursuits, I shall best repay the confidence reposed in me by taking an active part in the labours of the Society, and giving to them that direction which I conceive most useful; and I shall always esteem the greatest honour of my life, that of having reorganized an institution so pre-eminently useful.*

After the delivery of this speech, M. Cruveilhier exhibited some pathological preparations, viz. a case of deformed spine; a singular tumour, which was at the same time composed of adipose, fibrous, osseous, and even cartilaginous matter. This kind of association of adipose tissue with the fibrous and osseous is less remarkable than it at first sight appears, for according to the observations of M. C., the bundles of adipose vesicles are nearly always lodged in fibrous cells.

M. Comte communicated to the Society the case of a negress, eighteen years of age, and in the seventh month of pregnancy, who had been attacked with pleuritis, at the very height of which she miscarried; on the evening of the miscarriage she died. M. Comte was anxious to ascertain if the capsulæ suprarenales were larger in blacks than in whites, as has been stated by Hufeland and Cassan. Meckel affirms, that he did not perceive any difference in a negro, but that in a negress it was very apparent. In the present case, the larger development of the capsulæ suprarenales was said to be observed, but the specimens presented to the society were not very satisfactory. It is true that they had macerated some days in spirits.

M. Brierre presented to the Society, 1st, a heart having hypertrophy of the left ventricle, petrifaction of the auriculo ventricular zone, of the mitral valves, and consequently contraction of the orifice. The arch of the aorta was much dilated. It would be important to determine whether the hypertrophy is the cause or effect of the petrifaction.

2d. An aneurismatic heart, with proportional development of the four cavities, and without contraction of the orifices. The person from whom it had been removed had died from an affection of the abdomen, similar in its symptoms to peritonitis. The mucous membrane of the rectum presented a black colour; it was soft, and covered with small ulcerations. The stomach had a bluish hue, and the pyloric extremity was remarkably thickened. This was considered as the result of former inflammation, and supposed to have had no share in producing the death of the person. No other abdominal disease was discovered.

An anatomist (M. Amusat) having advanced that the lachrymal nerve comes from the 4th pair, and not from the ophthalmic branch of the 5th, M. Cruveilhier proposed that the Society should occupy itself with the investigation of this point. MM. Robert and Hutin are to make dissections in reference to this subject, and to present the preparations as soon as possible to the Society. The Society then adjourned.

Discovery of Two Canals in the Vagina and Uterus. By Dr. GARTNER, of Copenhagen.—(*Annali Univ. di Med., March* 1826.)

Dr. Gartner, in dissecting the uterus of the cow, found two singular canals, of which modern anatomists make no mention. They commence in the neighbourhood of the fallopian tubes, and open into the vagina near the meatus urinarius. They exist also in the sow; neither age nor gestation makes any difference; they are always present. In the sow,

* We shall not fail to give to our readers, from time to time, an account of the proceedings of this Society.

these canals commence by two openings situated on the sides of the orifice of the urethra, run obliquely from within outwards in the substance of the parietes of the vagina, and also a little upwards, thus describing a curve; in this course they receive lateral branches, coming from the neighbouring glands, the union of which forms a mass rather analogous in its external appearance to the pancreas; they diminish successively in size as they receive fewer of these small lateral ducts, and especially in the part of the parietes of the vagina which is continuous with the cornua of the uterus. They are always present, but their appearance varies; they appear more developed a short time after conception. In a sow, the uterus of which enclosed some fœtuses from two to three inches in length, the diameter of these canals was more considerable, and they extended, even in the substance of the broad ligaments, to within a few inches from the ovaries, where they apparently terminated in several small glandular granulations. The prolongation of these canals in the broad ligaments was very evident; their appearance was white and opaque, but it was easy to inject them with quicksilver; in some points they were considerably contracted, and appeared in some others completely obliterated.

In the cow, the vaginal orifice of these canals is larger, situated more in front, on the side of the meatus urinarius; these canals are continued the whole length of the lateral parietes of the vagina, nearly to a level with the orifice of the uterus, where they appeared all of a sudden to terminate; but an attentive examination showed, that they penetrate into the substance of the tissue of the neck of the artery, and re-appear on the uterus, on the surface of which, they, as it were, insensibly recover their existence, and are continued superiorly to the cornua of the uterus, and along their surface, to within a few inches from the ovaries. These vessels, or canals, are invariably to be found in the course which we have just mentioned. In some young cows, the uterine portion of these canals is so extremely fine, that it appears impermeable; in others, on the contrary, it is more or less dilated, and filled with a gelatinous and tenacious fluid, which presented the appearance of hydatids in the small dilatations. The portion of these canals which corresponds to the neck of the uterus is subject to several varieties, resulting principally from the age and the state of the gestation of the animal. The vaginal and uterine portions are both generally isolated, but the communication appears to be established through the medium of small glandular bodies, situated on the neck of the artery; sometimes, instead of these granulations, a real canal, laterally dilated, is found, in the parietes of which numerous vessels ramify, bearing some analogy to a common excretory duct. This disposition is very apparent in the adult cow. The distensions of a glandular appearance which are observed in this region, are sometimes very prominent, and filled with a gelatinous fluid. It is very rare that the canals which we have just described are alike in both sides of the neck of the uterus; most frequently a duct is found on one side only, and on the other glandiform granulations.

It is very probable that these two canals, or to use a better expression, these two organs, exert some influence on conception. Galen (in the article entitled, *de dissect. vulva* ch. ix.) appears to indicate someting analogous to this anatomical fact. De Graaf (*opera omnia*) probably suspected the existence of similar organs in the uterus of the woman; perhaps the fasciculi of muscular fibres found by M. le Baron Cuvier in the cow, extending from the ovaries to the neck of the uterus, bears some relation to these canals. Haller says nothing precise on the subject, but Malpighi (Epist ad Spont. p. 26.) expresses himself in such a manner, as to induce him to think that he understood these organs.

Absence of the Brain and Spinal Marrow.

M. Andral, jun., read a report before the Academie of Medicine, (Paris,) on an anencephalous case, transmitted by M. Allonnean, physician at Thonars, and corresponding member of the section. The subject of this case is a fœtus, eight months old, dead born, and presenting no trace whatever either of the brain or spinal marrow; the cavities of the cranium and spine contained only cellular tissue, in the areolæ of which an effusion of some red serum had taken place. The cranium was but imperfectly developed, for instance, of the frontal and occipital bones, there were only the orbitar and basilar portions, which justifies the law established by M. Geoffrey Saint Hilaire, that when the nervous masses are wanting the bones destined to cover them are also absent. The nerves, on the contrary, were all present: the author has only failed to mark with sufficient precision this termination in the cranium and spine. This then may be regarded as an additional fact to those which prove the possibility of the non-

existence of the cerebro-spinal axis in a fœtus arrived at its full time. But this fact does not explain in the least the question at issue, viz. whether in anencephalous cases, the nervous centres never existed, or if, having existed at the commencement, they have been afterwards destroyed by an accidental cause. We know that this last opinion was espoused by Morgagni, but the principal anatomists of the present day are inclined to the former, founding their opinion, 1st., on the fact proved in the formation of the fœtus, that the nerves develope themselves, not from the nervous centres to the organs which they supply, but *vice versa* from these to the nervous centres. And, 2dly., because comparative anatomy shows that, in certain fishes, the spinal nerves have no connexion with the spinal marrow, being, in fact, separated from it by a liquid.—(*Archives Generales, April* 1826.)

Experiments conducted with a view of showing the action which different metallic substances exercise on the animal economy. By M. Ch. Gmelin, Professor at Heidelberg.

Experiments with Titanium.

A drachm of titanic acid * was given to a middle-sized dog, in conjunction with some of its food. No unusual symptom developed itself. No experiments were made with the tantalic acid, but it is very probable that it possesses no active power.

Experiments with Osmium.†

First experiment.—Nine drachms of a liquor holding osmium in solution were injected into the stomach of a small dog. In two minutes afterwards, vomiting occurred, which continued without intermission for more than an hour. At first the animal threw up a fluid smelling strongly of osmium, then after great efforts it could only bring up a small quantity of white froth; at this time also coughing came on. On the following day the dog refused to eat, and looked thin; it recovered, however, gradually.

Second experiment.—Nine drachms and a half of a solution of osmium were injected into the stomach of a rabbit; the animal moved about as usual, but was unwilling to eat, and became extremely thin. Four days afterwards, the following experiment was tried on the same rabbit.

Third experiment.—At 9, (a. m.) nine drachms and a half of the same solution were injected into the stomach, and in an hour and a half afterwards, the same quantity was again injected. Immediately after the second injection the animal appeared very feeble, and the posterior extremities paralysed. It recovered, however, a little, and the extremities became mobile. At seven in the evening it was still alive, but on the following morning it was found dead and cold.

Inspection.

The animal was very much wasted. The œsophagus, stomach, and small intestines had externally a dark blue colour and their internal surface was black as carbon, and hard to the touch; the large intestines presented no alteration. The parietes of the stomach, in the neighbourhood of the cardia, were slightly hydropic. The stomach and small intestines were empty. The heart, lungs, liver, spleen, bladder, kidneys, and nerves were in the normal state. The black colour is evidently owing to the action of the animal matter on the oxide of osmium. No trace of inflammation could be perceived in the blackened parts; they had no bad smell, and did not tear more easily than in the natural state.

Fourth experiment.—Nine drachms and half of a solution of osmium, were injected into the stomach of a small dog; at the moment of the injection vomiting took place, and this was repeated several times during the half hour. Nine drachms of the metallic solution were thrown into the stomach again; vomiting occurred, which continued at intervals till the following day, when it subsided. On the third and fourth days the excrements were semi-fluid and mixed with black flakes.

Fifth experiment.—Half a drachm of the solution of osmium in the same quantity of water, was injected into the external jugular of a small dog without producing any effect.

Sixth experiment.—Two drachms of the solution of osmium were thrown into the crural vein of a large dog: no effect was produced.

Seventh experiment.—Twelve minutes past 9, a.m., fifteen drachms of the solution of osmium were injected into the external jugular of a strong middle-sized dog. Immediately after the injection, the animal had an alvine evacuation; but no other effect was observed than a distinct-

---

* The acid was prepared after the manner recommended by Rose.

† Fifteen drachms of the solution contain 1,395 of a grain of the metal.

nation to eat. Half an hour afterwards, the animal vomited some frothy matter, which recurred twice; it appeared harassed and the respiration was very laborious; at five minutes past ten it died quietly, having only a few slight convulsions, and without manifesting the slightest symptom of pain. The inspection, which was made a few moments after death, gave the following appearances: the extensor muscles contracted very powerfully on being irritated, and the peristaltic motions existed as in the natural state; the heart, however, on being irritated, contracted but feebly. The right ventricle and the right pulmonary artery were filled with black fluid blood. The lungs were distended, pale and covered with red spots; on being cut there escaped from the ramifications of the bronchia, a great quantity of white froth. The thoracic duct was completely filled with fluid white as snow. Several of the abdominal organs were in a state of congestion.

It appears from the experiments related above, that the solution of osmium exerts principally a nauseating effect, so that the animals which can vomit reject it from the stomach without any bad effect. It appears also that out of the stomach osmium is not poisonous to a great degree, as may be seen by exp. 4, in which, on the third and fourth days, black flakes presented themselves with the liquid stools. The slight activity of the osmium is again demonstrated by the experiments on rabbits, in which animal (vomiting being impossible) death only came on slowly, and not till after fresh doses of the substance. The manner in which the rabbits died may be compared to a combustion, since it is known that the oxide of osmium is reduced by animal substances, and it is evident that this took place.—(*Journ. de Chimie, April* 1826.

Poisoning by the Sulphuret of Arsenic.—By M. Orfila.

In an interesting paper read before the Royal Academy of Medicine, and since published in some of the journals, M. Guibourt announces amongst other facts, that the sulphuret of arsenic is not poisonous, and if sometimes bad effects were observed from certain sulphurets of commerce, they depended on the arsenious acid with which they are mixed. The innocuous nature of the pure sulphuret of arsenic being established by M. G. in his paper on no fact peculiar to himself, it is evident that this chemist entirely founds his opinion on the experiments of Hoffmann and Renault, who think that the sulphuret is not poisonous; but it is no difficult matter to show that these experimenters have been led into error.

First experiment.—From 50 to 60 grains of the yellow sulphuret of arsenic being applied to the cellular tissue of the internal part of the thighs of different dogs, these animals experienced all the symptoms which the different arsenical preparations produce, and between the fortieth and sixtieth hour they all died. On opening the bodies the following phenomena were observed: the limb to which the sulphuret had been applied was very red; the inflammation extended even a considerable way on the abdominal parietes; the stomach presented some dark violet spots, and several small ulcerations having a brown appearance, all the result of the destruction of the mucous membrane. The other viscera were in the natural state. The heart, however, was sometimes the seat of a very remarkable alteration; the interior of the ventricle presented several deep red spots, which principally occupied the carneæ columnæ, and penetrated at least a line and a half into the tissue of the heart. The auricles, aorta, and pulmonary artery, were in the natural state.

Second experiment.—The same effects were observed when from 60 to 70 grains of the same sulphuret were introduced into the stomach, the œsophagus being tied to prevent vomiting. On examination after death the digestive canal, liver, lungs, and heart, presented the same alterations as in the preceding experiments.

Third experiment.—The native *orpiment* from the mines of Tojova, in Hungary, applied to the cellular tissue of several dogs, in the dose of one to two drachms, is sufficient to produce poisoning, and the animals die at the end of two days, as has already been observed by M. Smith. On opening the bodies, the stomach was found inflamed and covered with numerous black spots; the heart and small intestines presented some signs of inflammation. The lungs were a little red.

The same experiments were repeated with the native sulphuret and native *Realgar* from a mine of *Kapnicke* in *Transylvania*, and were followed by the same effects. It appears then that the sulphurets of arsenic, both natural and artificial, are poisonous, even when they do not contain an atom of arsenious acid; indeed, their action is much less intense than that of this acid. This explains how M. Renault obtained little or no effect from a mixture of four, six, or ten grains of arsenious acid and a great quantity of hydrosulphurated water, to decompose the whole of the poison.—(*Ibid.*)

THE LANCET.

London, Saturday, May 27, 1826.

In the 138th Number of this Journal, we stated that much misapprehension prevailed on the subject of the late Meetings at the *Crown and Anchor Tavern*, and with a view to place the matter before the profession in a proper light, we promised to publish some account of the earlier proceedings of the parties by whom those meetings were convened; accordingly we have extracted from the Society's volume of "Transactions," a brief history of the measures adopted by them from July 1812, when the Association was formed, down to the publication of their book in 1823.

In giving so copious an account of the conduct of the "Associated Apothecaries of England and Wales" we had two main objects to attain; 1st. It was our anxious desire that the profession should be fully acquainted with the *kind* of medical reform for which the Associated Apothecaries have been so long and so zealously labouring; and, 2dly, Had it been possible,—to have prevented them from presenting a Petition to the Legislature, praying for an alteration in the Apothecary's Act of 1815. The first is doubtless already accomplished, indeed the most careless reader cannot now be unacquainted with the peculiar notions of medical legislation entertained by the Associated Apothecaries. But, unfortunately, the second object is not only unattained, but is *unattainable*, as we are informed that their petition was presented to the House of Commons about three weeks since. It could not have excited the slightest interest in Parliament, as the occurrence has not been noticed in any of the newspapers. For the present, therefore, we shall abstain from further comments on the proceedings of the Associated Apothecaries, as there is nothing to be gained by them; but in the course of our future discussions on the important subject of Surgical Reform, we shall feel it our duty to expose the fallacious principles on which their conduct has been founded. Their intentions are good, but the means by which they would accomplish them are truly ridiculous.

The Anniversary Dinner of the Governors of the London Ophthalmic Infirmary takes place on Wednesday next; on which occasion Dr. Farre "means to defend himself against the infamous attacks in The Lancet;—he is determined to uphold his dignity." Where, we will ask Dr. Farre, are the infamous attacks in The Lancet to be found? We have given but two brief notices in which the Doctor's name has been mentioned; and certainly in neither of them is there any "infamous attack." We entertain a little respect for the Doctor's talents, but none for his "dignity;" we assure him that his pompous blusterings will not alter a stroke of our pen, or lessen, in the slightest degree, our endeavours to root out the infernal corruption which exists in the *charitable* institutions of this metropolis. Probably the dignified Doctor will condescend to inform us on Wednesday next, 1st, Whether he receives *a third* of the student's fees? and if so, as a compensation for what duties? And how many patients belonging to the Infirmary has he prescribed for within the last three years? Explicit answers to these questions will oblige many of the Governors.

Just as we had written the above, a friend who had attended the Committee, held at the Infirmary on Wednesday last, called to say that the *great Doctor* was quite outrageous, and accused some of his best friends of writing and conspiring

against him; said he with wonderful dignity, "I will *combat* my opponents—not with a sword of steel, but with the sword of truth." We rejoice at this declaration, as we shall now fight on equal terms.

A Correspondent at BRIDGWATER writes to us on the subject of SAINT SUTLEFFE'S anecdote of "*an imaginary disease*," inserted in the 105th page of the present volume. He says that our friend the saint is very much in error in stating that Mr. A—— is *never* at a loss, for that, in fact, he was completely bothered by the lady's reply to his attempted explanation of her husband's disorder.—"Why, Sir," said she, "I am sure you do not understand my husband's complaint now, *as he always sleeps with his* MOUTH *open*."

Thirteen or fourteen, or, in other words, about two thirds of JEMMY COPLAND'S readers complain at not having yet received the INDEX to the last volume of the Repository, which was concluded in *December*. Three *Editors!* and no Index, after a lapse of *five months!* Pray, *Jemmy*, what is the cause of this ungracious delay? Do you dislike to put it forth, in consequence of its meagre aspect? or are you and your brother Editors too busily engaged in the "higher literary department" of the *Mausoleum* to stoop to such a mechanical occupation as Index-making? Eh, Jemmy, why has it been thus withheld from your admiring readers—this *Index to nothing?* We entreat you to set about it forthwith, so that this grea chasm in medical literature may no longer continue to affright and vex your votaries; besides, you know full well, that the Numbers and Indexes of your journal have been *necessary* companions for some time past, and that it is an act, if not of dishonesty, at least of unkindness, to keep them any longer separated.

JOE BURNS a punster! "think of that, Master Brook!" One day last week MR. CHARLES BELL removed a mass of cancerous disease from the breast of a female, the glands of the axilla being at the same time considerably enlarged. A surgeon who was present at the operation did not approve of it; and, said to our friend JOE, "I should not have expected this from the author of the Respiratory System of the Nerves." "Bless you," said JOE, "he has two systems, and this is a part of his EXPIRATORY System of Surgery."

A pamphlet, containing the curious evidence given before the HOUSE of LORDS in the Gardner Peerage cause, has just been published by Dr. Lyall. The majority of the medical witnesses present us with some precious specimens of forensic wisdom. In our next we will gratify the profession with the sight of a small portion of their *obstetric lore*.

MEDICAL SOCIETY OF LONDON.

MAY 15th, 1826.

Dr. STEWART called the attention of the Society to an instrument invented by the French, and called by them an *auriscope*; the object of which was, to dilate the *meatus auditorius*, and render the bottom of it visible. This instrument, which Dr. S. showed to the Society, belonged to Mr. Curtis, the aurist; this gentleman, however, had never used it. We cannot give any verbal description of it, except that it consisted of a brass plate, which fastened on the side of the head by means of a strap; in the plate were screws, by means of which the sides of the meatus were separated from each other.

Mr. Amesbury called the attention of the Society to the investigation of an apparatus which he invented several years ago, and which he has since used with great benefit in the treatment of stiff knee joints, and in that state of the limb in which the leg becomes prominently bent upon the thigh, in consequence of a permanent contraction of the flexor muscles of the leg. Mr. A. observed, that in some cases the stiffness which follows long continued inflammation of the capsule is so great, that none of the usual modes of treatment are found adequate to restore the functions of the joint. He had noticed that when the surgeon attempts to break down the adhesions, which form in these cases, by manual exertion, the patient, being put to great pain, throws the muscles destined to move the bones upon one another into a state of violent contraction; so that, in addition to the power which is necessary to be employed in order to break down the adhesions in the joint, the surgeon must use sufficient force to overcome also the action of the muscles which oppose his efforts. This mode of proceeding is always productive of much suffering, and frequently fails to benefit the patient. Mr. A. said, that by the judicious employment of the apparatus which he now submitted to the inspection of the Society, the functions of the joint were brought about in such a manner that the muscles were not excited to contract, so as to resist the action of the apparatus, and therefore it had simply to overcome the adhesions to which the inflammatory action had given rise. Mr. A. had used this apparatus in various cases of stiff knee joint, and had seen it employed with great advantage in St. Thomas's and Guy's Hospitals.

Mr. A. stated, that he had also found the use of the apparatus highly advantageous in that affection of the limb which is commonly called contraction of the knee, the nature of which he had already mentioned.

From the recommendation of his friend Mr. Iliff, he had been very recently requested to see a young lady, then on a visit at Mr. Marsden's, Queen-street, Cheapside, whose case he would briefly relate to the Society by way of illustration.

This lady had not been able to stand for five years, in consequence of the existence of that affection of the lower limbs to which he had just alluded. In this case the legs were bent so as to form right angles with the thigh, and the lady was carried from place to place in the arms of her attendants, or in some convenient vehicle. Mr. A. applied an apparatus to each limb, and had the happiness to find that the lady was able to stand, without the support of the apparatus, within a week from the time of its first application; and within twelve days she was able to walk about the room, merely steadying herself by holding a friend's arm.

Mr. A. described the apparatus to the Society; it consists of two pieces of wood, united by a hinge-joint. These portions of the apparatus are made to move by means of a male and female screw, so that they may be bent upon each other, or straightened at pleasure. When the apparatus is employed, a pad, constructed for the purpose, is placed upon the knee-pan, and buckled round the limb, over the apparatus, which is placed at the back of the limb, with the joint opposite that of the knee. The upper and lower ends of the apparatus are fixed to the limb by means of straps, carried round the limb over the apparatus, and over a couple of splints, one of which is placed upon the front of the leg, and the other upon the front of the thigh.

HUNTERIAN SOCIETY OF LONDON.

May 17.

Debate on Transfusion.

Mr. Waller related the case of transfusion to this Society, which we gave in a former Number of this Journal. Mr. Waller stated that the contents of this woman's stomach were thrown up before he left her; and this, he (Mr. W.) observed, took place in most of these cases of desperate inanition, so that it was useless to rely upon the introduction of food, as the stomach was so weakened by the hæmorrhagi, that digestion could not take place.

Dr. Conquest said, that as a public teacher of midwifery, he had considered it his duty not only to read all that had been written upon the subject, but to converse with men who, from their long standing and great experience, might be considered as authorities, and he had found that the opinion of all of them was very decidedly opposed to transfusion. It had fallen to his (Dr. C.'s) lot to witness many most alarming cases of uterine hæmorrhage, but he never knew a case which proved fatal.

Mr. Waller said, that as far as authorities were concerned, he would fearlessly

place the names of such men as Dr. Blundell, Dr. Gooch, Dr. Davis, and Dr. John Hull of Manchester, against any authority that could be brought forward against the operation.

The President (Dr. HAMILTON) considered the case highly creditable to the Gentleman who had brought it forward. There was only one thing which he had omitted to employ, and that was, to have administered *glysters of chicken broth!!*

ANOTHER SUCCESSFUL CASE OF TRANSFUSION.

To the Editor of THE LANCET.

SIR,—The subject of transfusion having excited a general and intense interest, I am induced to forward to you the following case, in the relation of which I shall purposely avoid physiological remarks, and confine myself to facts that I am fully prepared to substantiate (if necessary) by unprejudiced authority.

On Wednesday, the 17th inst., about 11 a. m., I was called in haste to Mrs. Bates, of No. 9, Great St. Andrew's street, whom I found in a state of extreme exhaustion from uterine hæmorrhage. I learnt that she had aborted (at the end of the third month) at one o'clock in the morning, and that the flooding had been *ever since copious and incessant*. Finding, upon examination, that the fœtus, placenta, and membranes, had been expelled, I directed the application of cold water, and after an hour I had the satisfaction to find that the hæmorrhage had ceased, and I took leave of her. Upon renewing my visit three hours afterwards, I found her still more sunken, and although the hæmorrhage was not renewed, I could perceive the prostration increase, even as I sat by her. I now administered landanum and brandy with that unsparing liberality, of which but too much experience in these urgent cases has taught me the propriety and *necessity*. The hours rolled on, but my poor patient's system replied not to the repeated use of these powerful stimulants; life was fast ebbing, and nature incapable of rallying. Her countenance was blanched and cadaverous; her eyes, sunken and dim, were partially covered by the falling of the upper lids; her lips pale and quivering; the extremities cold; the surface of the body covered with a chilling moisture; the pulse just perceptible enough to be found fluttering and irregular, beating (as well as I could ascertain) more than 140 strokes in a minute. She was extremely restless, and every now and then a cessation of the pulse, a livid hue of the face, and motionless position of the body, marked a temporary state of syncope, which I more than once mistook for death. Notwithstanding the flooding had ceased, eleven hours were spent in attempts to induce reaction, but in vain; not a solitary indication of it was manifested during this time, but the patient continued gradually to sink, until but faint signs of life remained.

The operation of transfusion now appeared to me the only means of saving the patient's life, and I therefore immediately called in the assistance of my friend Mr. Scott, of whose ingenious apparatus for transfusion of blood I had just heard. This gentleman fully concurred in my opinion of the extreme danger of the case, and of the utter inefficacy of all medicinal agents, but he rather *yielded to*, than *approved of*, my proposal to try the operation of transfusion, as he regarded the life of the patient too near its extinction to be capable of resuscitation. I lost no time, however, in procuring, from Mr. Read, the necessary instruments, and four ounces of blood were injected into the median vein of the right arm. *In a few minutes* the pulse became stronger and more apparent, and the countenance lost much of its death-like appearance; the surface became warmer, the eyes intelligent and inquiring, and in a quarter of an hour from the operation, she raised herself upon her elbows and asked for drink; the circulation gradually recovered, and steadily rose in firmness, whilst it diminished in velocity, and after less than an hour, we left her with a pulse not weaker, probably, than in health, and equal in its beat, striking 120 strokes in a minute. In fine, from this moment she rallied, and her convalescence has been uninterrupted.

Such, Sir, is a brief sketch of the most gratifying case that has ever rewarded my professional solicitude; and if there lives a sceptic to the powers of transfusion, he cannot receive a more just reward, than in being for ever shut out by his prejudices from the enjoyment of that satisfaction which results from so closely contributing in restoring a wife to her husband and a mother to her children.

In conclusion, I cannot speak too highly of the ingenuity displayed by Mr. Read in the apparatus I employed; for however formidable and difficult the opera-

tion may have hitherto seemed, it may be performed by this instrument with the greatest ease.

I am, Sir,
Your obedient humble servant,
JOS. RALPH.

19, Leicester-square,
May 23, 1826.

To the Editor of THE LANCET.

SIR,

It requires a public-spirited individual like yourself, aided by that mighty engine the *Press*, which you are so successfully wielding in the cause of medical liberty, to correct the glaring abuses at present existing in the various departments of the profession. I beg to thank you individually, and in the name of many of my acquaintances, for the indefatigable perseverance you have shown in the cause, and trust that you will go on and continue your praiseworthy exertions, till a complete reform has been obtained.

I have observed with great interest the various proceedings that have taken place, especially as to the abuses in the College of Surgeons, and have read with no little astonishment the " Refutation, ' (if such it can be called,) put forth by the Council and published in your 141st Number. I do not mean to follow the Council through their tedious and extraordinary paper, but state that my attention has been more particularly arrested in its perusal by the degrading and contemptuous manner in which the General Practitioners are spoken of, and the scandalous assertion, that were the affairs of the College to get into the hands of the members at large, there would at once be an end to every thing like " Sound chirurgical knowledge," and the annihilation of all rule and regularity, as if, forsooth, General Practitioners (the most numerous and by far the most useful body in the profession) cease to be *surgeons and honourable men* when they send out medicines to their patients. The true meaning of the thing is this—that Messrs. the senile council and examinators would no longer have the honours and good things they at present enjoy, as the " Ruling powers ;" for, were a new charter granted, the members of the College would immediately remove these superannuated worthies and substitute efficient men.

But I would particularly beg the attention of the members of the college who are general practitioners, to the two last clauses but one of the Council's " Refutation" which you have already very properly animadverted upon, and perhaps you will allow me to transcribe them again as they ought *never to be forgotten* during the present contest, and cannot be too much held up to the view of the degraded members. They say " It is represented" (and very truly too,) " that the constitution of the College has been the cause of the alleged injuries and grievances. The evident object of this representation, is the subversion of the present government of the College, and the substitution of elections to offices of control and responsibility, by members, who for the most part exercise the professions of apothecaries and accoucheurs. There can be little doubt that in the event of such an innovation, the institution would soon cease to be a College of Surgeons or of Surgery, and a system of continual intrigue and cabal amongst the profession in general would be introduced."

Now, I would ask, whether the Council are borne out, by facts and *experience*, in their most disrespectful and unblushing assertion? or whether the effects the council so much dread, in *their anxiety* for the *welfare of the College*, have ensued in other Colleges of Surgeons, not inferior I believe to that of London, either in character or abilities, and certainly much superior as to the extent of study and qualifications necessary in candidates for their diplomas—I allude to the Colleges of Edinburgh and Glasgow. The president, examiners, and other office-bearers, are, without any exceptions I believe, *General Practitioners*, prescribing and *sending out medicines* for their patients ; but I have yet to learn that these royal bodies are governed by " intrigue and cabal," or that they are likely soon " to cease to be Colleges of Surgeons or of Surgery."

But as these supercilious and fastidious old gentlemen, Messrs. the Council, seem to eye the General Practitioners with such thorough contempt, and look down upon them as unworthy of their notice, I trust that the latter will on all occasions treat the Council and their coadjutors with the respect they so much deserve, and will, with their patients, keep at as *respectable a distance* as possible. It would be perfect contamination for one of these elevated " pure surgeons" to meet in consultation a General Practitioner, the fomenter of " intrigue and cabal," and indeed it would be considered a piece of very great presumption in the latter to thrust his unmannerly presence on the proud aristocracy of the profession. " O procul este profani," &c. And I have no doubt but a *fee introduced* by a surgeon-apothecary and accoucheur would be absolutely *refused*, as it would smell of physic! a commodity these scientific surgeons thank God that they have had nothing to do

with, and know nothing of! which I most readily believe, judging by the mechanical farrago of ingredients I have often seen huddled into their monstrous prescriptions that would disgrace the merest Tyro.

I therefore hope the General Practitioner will in future know how to keep his place, and not dare to intrude upon his betters, especially as there is abundance of enlightened and scientific surgeons in London, who will think it no disgrace to join in consultation the surgeon-apothecary and accoucheur.

A General Practitioner.

To the Editor of The Lancet.

Sir,—In looking over the contents of your 137th number, which this day came to hand, I found a communication from Mr. Goulson "on the uses of charcoal in sloughing phagedena;" and as the subject had previously engaged the pens of Mr. Wansbrough and myself, I anxiously turned to the page, expecting that Mr. G. had favoured us with a solution of the point at issue, by throwing some light on the obscurity in which the subject was, and still is, involved. After reading the first half dozen lines, I flattered myself that my hopes were realized, and indeed any one reflecting on the observations therein contained, would conclude that the author of them was about (to use his own expression) *setting the matter in its proper light*. The sequel, however, proves that we are constantly exposed to disappointments; and finely illustrates the fable of the mountain in labour. As the point at issue was the rationale of the salutary action of charcoal on ulcerated surfaces, I shall beg leave to address a few words to your numerous and impartial readers in reply to the objections raised by Mr. G. against the opinion I advanced in a former number of The Lancet, under the signature of ** M—; first premising, that I beg to refer them to what I then stated, in consequence of an insinuation expressed in the latter part of Mr. G.'s communication, tending to convey an impression that I condemned in toto the *use* of charcoal in sloughing phagedena, whereas the benefit derived from it never admitted of doubt, and consequently did not enter into the subject under discussion. The principal, nay, the only objection which Mr. G. starts against the mechanical action of charcoal, is founded on the fact, or rather as I shall show on the supposition, "that it has *chiefly* (in his practice perhaps) shown its good effects in cases where applications of a stimulating nature aggravated the disease." To this I may reply there is no rule without an exception—such a subterfuge, however, I want not, but aver that where the application of charcoal has been followed by a sedative effect, it (the effect) has been in contradistinction only to the excessive excitement occasioned by chymical stimuli, and therefore apparent, not real, or in other words, by the substitution of a less active stimulus the excitement occasioned by a more powerful one degenerates, and a comparatively sedative effect is the consequence. Although I am not ignorant of the sedative effects of charcoal upon the nervous system, when taken into the circulation through the medium of the chylopoietic viscera, yet when the insoluble nature of charcoal is considered, will any one, with the least pretension to physiological knowledge, believe it to have a direct sedative effect on the surface of an ulcer. The following question I cannot pass over without notice—"Who that is conversant with chymistry, will maintain that it (charcoal) can have no *chymical* action on the surface of an ulcer?" Without directly answering in the affirmative, I will maintain that until chymical action shall have been demonstrated, by chymical reagents, to have taken place, it is more plausible to consider its salutary effect entirely mechanical; and assuredly more philosophical, for who would attempt to explain an effect by an *unknown* cause, when an apparent one, which possibly may be true, is within reach.

After having denounced us ignorant of the important properties of charcoal, Mr. G. passes on to acquaint us of what every tyro in the profession is expected to be aware, and which had it not been trespassing too much on your valuable pages, Mr. Wansbrough would have, no doubt, detailed, in order that his theory might have received the support which is frequently derived from analogical reasoning.

With all deference, I cannot conclude without reminding Mr. G. that, although argument, conducted with temperate language, is the great and only sure means of eliciting truth, it is at the same time a waste of time and paper when not directed to, and if possible followed by, a satisfactory conclusion. With this impression, and as I have made a full exposition of my ideas on the subject, I shall close the discussion.

Not to subject myself a second time to the imputation of a breach of duty, and relying on your liberality to give this insertion in the columns of your widely-extended Journal, I remain yours,

E. T. Meredith.

Kingston, May 10, 1826.

HOSPITAL REPORTS.

GUY'S HOSPITAL.

Aneurism of the Arteria Innominata.

A poor man, about 50 years of age, was admitted into the Hospital, under the care of Mr. Key, on account of a pulsatory tumour on the right side of the neck; it is about the size of a pigeon's egg, situated immediately above the clavicle, between the trachea and inner edge of the sterno-cleido-mastoideus. The pulsations in the tumour are synchronous with the heart's beat, and it has an elastic feel; pressure upon it occasions pain. There is no irregularity perceptible at the radial pulse; under the cartilage of the second rib a distinct whizzing noise can be heard, the blood being as it were propelled with additional force, in consequence of meeting with an obstruction. The man's general health is good; he says that he has perceived the swelling about twelve months; it does not produce any difficulty in breathing or impediment to deglutition.

There can be no question that the disease is aneurismal, but a doubt exists as to what parts are involved in the disease. Mr. Key considers that it is aneurism of the arch of the aorta.

[These notes were made on the case a few days after the patient's admission.]

This poor man continued in the Hospital until the 9th of May, when he died under rather peculiar circumstances. We have said, that when admitted into the Hospital his general health was good; for some time previous to his death, however, his legs became œdematous, and his constitution was evidently beginning to fail. The tumour had not increased in size, or at least if it had done so it was in a very slight degree. The only treatment employed was the administration of digitalis for some time. In opposition to the opinion of Mr. Key, some one considered it an aneurism of the arteria innominata, and recommended tying the common carotid and subclavian arteries, on the same principle that Mr. Wardrop undertook the operation of tying the carotid artery above the aneurismal swelling. Mr. Key thought proper to decline adopting a measure so hazardous.

On the evening in which the patient died, at nine o'clock, he was in his usual health and spirits, the latter of which were always good, when he was suddenly attacked with a wheezing and difficulty of respiration; he continued in this state about two hours and then expired. We learn from the dresser, that the man died "with every symptom of suffocation." It does not appear that any very active measures were adopted for his relief.

Post-mortem Examination.

The body was examined on the following day.

Thorax.—There was a considerable effusion of serum into the left side of the thorax; some flakes of yellow coagulable lymph were floating in it. The lungs were fully distended with air and not unusually loaded with blood.

On cutting open the pericardium, there was found to be a larger quantity of serum than usual, and the heart was evidently much increased in size. On tracing the large vessels upwards from the heart, the aneurism was perceived to be of the arteria innominata, and apparently formed by the dilatation of the coats of that vessel. The sac commenced at the root of the artery, where arising from the arch of the aorta, it passed some way up by the side of the trachea. The whole of the ascending aorta was much increased in size and its coats in a diseased state; the coats also of the subclavian and carotid artery were very much thickened. There was a large portion of coagulum in the sac, and the sac was so firmly adherent to the under part of the first portion of the sternum, that in raising the bone it was torn so as to expose the coagulum contained within. The left parietes of the heart were very much enlarged. No other morbid change was observed that could account for the sudden death of the patient.

Disease of the Knee-Joint.

W. Beckett, ætat. 28, of spare habit and sallow complexion, was admitted into the Hospital on 1st of February, under the care of Mr. Key. He has had disease of the left knee upwards of seven years; it originated from a fall on the part, to which succeeded great pain and swelling; he pursued his ordinary occupation, although the part was so very painful that he was compelled, occasionally, to desist from work. About four years since he came into Guy's Hospital; leeches and blisters were repeatedly applied to the part, and a seton also inserted. When he left the Hospital the joint was free from pain, but it admitted of very slight motion. He went about his employment for many months, but was again compelled to leave off, in consequence of the

joint becoming painful, and this increased so much as to prevent the least motion being used, and eventually compelled him to use a crutch; the pressure on the joint in walking occasioning the most excruciating pain.

Upon looking at the limb, we perceive the whole joint to be very much enlarged, and this appearance is probably increased by the emaciated state of the leg and thigh. On examining the part, we find it difficult to detect the usual prominences about the joint, in consequence of the thickened state of the soft parts. Great pain is experienced when pressure is made on any portion of the internal condyle, and this part seems much enlarged, as if disease were going on in the cancellated structure of the bone. The outer condyle is not so much enlarged. The patella is fixed, and any attempt at moving it occasions great pain of a darting kind; and also the slightest attempt at motion of the joint gives pain. The treatment pursued in this case has been the occasional application of leeches, when the joint has been in much pain. The limb has been kept at rest by confining the patient to his bed, and of late a caustic issue has been made at a short distance above the knee.

There is certainly less swelling and deformity in the appearance of the joint than at the time of admission, and the patient's health has greatly improved.—The limb may therefore probably be saved to the patient, but as it is considerably flexed, it will be anchylosed in a very unfavourable and inconvenient position.

The cases admitted under the care of Mr. Bransby Cooper, on Wednesday the 10th of May, were of the following description:—

Males.—Ulcer of the foot, connected with disease of the metatarsal bones; mucous disease of the bladder; impetiginous eruption; scrofulous ulceration of the foot; abscess in the perinæum; superficial ulceration of the leg; pustular eruptions; abscess of the hand; hæmorrhoids.

Females.—Ulcerated throat; polypus nasi; ulcer of the leg; swelling of the parts about the knee-joint from injury.

The only case amongst the male patients from which any thing practical can be deduced, is in the case of diseased bladder. The patient is a man about 70 years of age, and has laboured under the disease more than nine months. The urine is loaded with mucus, and great difficulty, with pain, is experienced in passing it. The prostate gland is enlarged. Mr. B. Cooper has prescribed the following draught:—

Balsam of capivi, half a drachm,
Liquor of potash, fifteen drops,
Laudanum, ten drops,
Camphor mixture, an ounce and a half,

to be taken three times a day.

The female cases, with the exception of the polypus, are of a trivial nature.—The patient affected with this disease is a young woman; the tumour has attained considerable magnitude, filling the left nostril, and extending into the posterior nares; it may be distinctly felt on passing the finger behind the soft palate.

Mr. Cooper believes the polypus to be of the gelatinous kind, and will shortly undertake an operation for its removal.

ST. THOMAS'S HOSPITAL.

Dislocation of the Scapular Extremity of the Clavicle.

The patient is a woman about 70 years of age; the accident occurred about four months ago, and the dislocation has remained unreduced during that period.

The scapular end of the clavicle glides upon the acromion, and the shoulder, when compared with the opposite, appears to be fallen inward. It is readily reduced by making pressure on the luxated end of the bone, and at the same time carrying the shoulder outwards. It speedily returns, however to its situation on the acromion, and we apprehend there will be some difficulty in retaining it in its proper situation. But even when unreduced, the use of the limb is not much interfered with.

Lateral Curvature of the Spine.

This is (to use the language of Pott) "one of those deviations from right shape, which growing girls are so liable to," and on the pathology and treatment of which so many works have lately been written.

The patient is very much deformed, but a healthy-looking girl, about 16 years of age; the right shoulder appears to "grow out," as it is termed, and the greatest curvature of the spine is towards the right side, extending throughout the greater part of the dorsal vertebræ. There is no reason for supposing this curvature of the spine depends on disease of the bone, although the ligaments are probably affected. In consequence of tenderness upon pressure in the upper dorsal verte-

bræ, Mr. Tyrrell directed the application of a blister.

The remainder of the female cases are too unimportant to dwell upon.

Compound Fracture of the Ulna at the Elbow Joint, with Fracture of the Humerus.

On Friday noon (May 5th,) a man was brought to the Hospital in a state of intoxication; he had been knocked down, and the wheel of a waggon laden with coals had passed over the right arm.

On examining the parts, the humerus was found to be fractured, at about one third distance from its head, and the olecranon was also discovered to be broken. There was a good deal of swelling and ecchymosis about the parts, and on the inner side of the arm at some distance below the bend of the elbow, was an irregular wound, big enough to admit the end of the middle finger; there were also slight abrasions of the skin in two or three places.

The wound of the arm was supposed to communicate with the joint, but of this there was no distinct evidence. The patient was a coal heaver, a middle-aged man, of lax fibre and bloated appearance, in the habit of drinking large quantities of porter daily. When he came to the Hospital he was, as we before stated, very much intoxicated, and notwithstanding the extensive mischief done to the arm, he persisted in throwing it about. He was put to bed, and the arm placed in an extended position on pillows; cloths were made wet with spirit lotion and applied over the part. The wound was closed with a piece of lint.

On visiting him the following day, we found that he answered questions in a drawling irrational manner; the pulse was quick, but feeble; the tongue moist, and the skin cool. The parts about the elbow were a good deal swollen; leeches had been applied and the spirit lotion continued. Mr. Tyrrell also directed that he should have some porter, which was to be given him cautiously, and discontinued if circumstances rendered it necessary.

We did not visit the patient on the following day, (Sunday,) but learn from the dresser, that no very material change took place in the symptoms, except that the delirium increased. Towards the evening the powers of life began to flag, and he expired on Monday at one o'clock, (a. m.) being a period of about 60 hours from the receipt of the injury. The limb did not become of a gangrenous hue, so as to attribute the circumstance of his sinking to incipient mortification; the only apparent functional derangement was in the brain, and therefore, we must say that he died from that inexplicable and mysterious cause—constitutional irritation.

Post-mortem Examination.

There was an oblique fracture of the humerus, with considerable laceration of the muscular fibres around the part. On examining the parts at the elbow joint, there was found to be very extensive injury inflicted here. The olecranon was broken through at its root, and the ulna was fractured through the neck, a portion of the articulating surface was completely detached. The wound was found to communicate directly with the joint, and there was great extravasation of blood into the cellular membrane of the fore-arm.

From the circumstance of the radius being uninjured, it may be presumed that the wheel took an oblique course, commencing at the bend of the elbow on the inside, and passing over the humerus.

The brain was examined, the only thing remarkable observed here was a portion of brain in the middle of the pons varolii, of the size of a nut, which had become converted into a hard brown substance, resembling a tubercle. Around this little body, to a small extent, the substance of the brain appeared to be softer than natural.

We have not been able to ascertain whether any symptoms of disease in the brain were manifest during life.

ST. BARTHOLOMEW'S HOSPITAL.

Case of Idiopathic Tetanus.

Thomas Morgan, a baker, aged 34, of a thin habit, and sallow complexion, was received into John's Ward of this Institution, on the 23d of March, under the care of Dr. Latham, labouring under a tense and rigid condition of the muscles of the abdomen and lower extremities. He states that he first became unwell about three weeks since, when he had shivering, and subsequently a degree of fever, attended with a sensation of constriction, and pain in the chest. Shortly afterwards, he felt a pain in his thighs. The attack, however, was not severe, and it is only within the last week that he has been obliged to confine himself at home, and leave off work. He has felt a stiffness about the jaw from the beginning, but within the last week, the lower extremities have become attacked. At present he lies in bed quite prostrate, with a suspension of all voluntary power over

the lower extremities, which are perfectly rigid; considerable force was used in attempting to flex them, but to no effect; the joints could not be made to yield in the slightest degree. The abdominal muscles are likewise hard and tense, and he can only in part open his mouth. The latter affection is unattended with any particular pain, and the muscles of the neck do not participate in the disease. He says, that previous to the commencement of the attack, he was strong and robust, but that he has since wasted considerably. During the night time, he frequently experiences a twitching of his lower limbs, and also a pain across the shoulders. The bowels have, generally speaking, been regular; the pulse is 120, small, but not weak, and the tongue is loaded, but moist. He was ordered to take two grains of calomel and ten of jalap immediately, and this to be repeated every six hours, until the bowels should be freely opened.

24. Has taken three doses of the medicine, but the bowels have only acted once. The rigidity of the muscles of the lower limbs is less than it was yesterday, and with some difficulty he can now manage to bend them a little; the state of the abdominal muscles, and also the want of power in opening the mouth, remain as yesterday. Pulse 88 and wiry; tongue much cleaner. Let him take a dose of house medicine directly.

25. Has passed a good night, and had some refreshing sleep; has now much more power over his limbs than before. Bowels open, but the stools are dark and offensive; pulse 84, soft and compressible; tongue nearly clean. Ordered to take antimonial powder and calomel, of each two grains, in the form of a pill every night, and the following draught three times a-day:

Sulphate of magnesia, 1 *drachm*;
Camphor mixture, 1½ *ounce*.

27. Not quite so well; the bowels have been open, but the pulse has risen, being 108, and attended with a jerking feel. Sixteen ounces of blood were therefore ordered to be drawn from the arm, and the other medicines to be continued.

28. Blood slightly buffed. The medicines have the effect of keeping the bowels freely open, but the stools have still a dark colour, and are about the consistence of paint. The tension of the muscles is lessened, except those of the lower jaw, which are, as yet, not much improved. Pulse 104, but weak; tongue clean.

April 1. Gradually improving. Has now almost the free use of his limbs, as well as control over the abdominal muscles. Continue as before.

4. The stools still present an unhealthy appearance, but on the whole he is much better.

11. He has got up, and can now, with the assistance of a stick, walk across the ward. He is considerably reduced, and excessively weak. Bowels regular; continue the medicine.

16. All the tetanic symptoms have subsided, except in the muscles of the lower jaw, which, as yet, he cannot use so freely as he was wont to do. The tongue is quite clean, and he is gaining strength fast. Discontinue the medicines.

25. Well; except that he cannot open his mouth as wide as natural. Ordered to take the blue pill, with aloes every night.

After continuing a few days longer in the house, he was discharged.

Fæces discharged at the Groin.

Priscilla Foalks, the subject of this distressing complaint, was lately admitted and placed under the care of Mr. Lawrence. On examining her right groin, we found a fissure about two inches in extent, lying in the course of the inguinal canal: through this aperture or fissure her fæces are in part discharged.

This afflicting, and we may say disgusting infirmity, was the consequence of a mortification of the bowel, the effect of long continued strangulation which took place about two years since. She had laboured under a reducible hernia for a year and a half previously, and had, at times, worn a truss. As the opening, which gives passage to the fæces, does not possess the same organization as the lower end of the rectum, and as, in particular, it is not furnished with any sphincter capable of contracting and relaxing itself as occasion may require, the fæces are continually escaping without the patient being in the least aware of the occurrence. Thus she is at once an object of disgust and annoyance to all around her. Previous to her admission into the hospital, the patient had been an inmate of St. Clement's Work-house, and had almost constantly kept her bed. No mechanical contrivance has hitherto been resorted to for the purpose of alleviating those distressing inconveniences which the involuntary discharge of flatus and fæces necessarily occasions. She keeps rags by her bed-side, and as necessity requires she uses them. Since the occurrence of this malady, she has been subject to cholic pains, and has been obliged to take medicine for their relief;

on the whole, however, she enjoys good health.

The evacuations which she passes by the groin, are always fluid, but occasionally she voids some of a natural consistence, by the anus. Mr. Lawrence appeared to be undecided as to whether it was a portion of the small intestines which were implicated, or, whether it was a part of the colon; it was presumed, however, to be a part of the colon, as the fæces had a strong feculent odour. He regarded this as a fit case for the plan of treatment recommended by M. Dupuytren, but when the operation was proposed to the patient she firmly refused to submit to any thing of the kind; preferring, rather, to spend the remainder of her days in abject misery, than expose herself to the casualties of such a formidable procedure.

About a week afterwards she left the hospital of her own accord.

Operations.

Removal of a Scirrhous Breast.

Mr. Vincent removed a scirrhous breast on Saturday (May 20th) from a woman about 50 years of age. On examining the mammary gland previous to the operation, a hard loose tumour, about the size of a moderate orange, was felt about its central part. There was no enlargement of the glands in the axilla, neither was there any disease in the corresponding gland. Every thing appeared favourable for an operation, and it was performed by making two elliptical incisions through the gland; at the same time taking care to cut wide of the tumour. The whole of the mammary gland was not removed, as Mr. Vincent considered it to be unnecessary.

Cancer Labii.

On the same day, Mr. Earle removed a cancer of the lip from a man, about 40 years of age. It had been forming for the last two years. It seems he is accustomed to smoke a good deal, and has usually placed his pipe in the situation where the cancer has formed. It was necessary to secure the coronary artery and another branch of the external maxillary. The edges of the wound were brought together in the same way as in the hare-lip operation.

A little boy, who has been in the Hospital for some time past, was put on the table to be operated on for stone, but as the calculus could not be satisfactorily felt by Mr. Vincent, he deferred it.

HOSPITAL OF SURGERY,

Panton Square, St. James's.

In no way can the aid of the charitable be more usefully employed than in relieving those who are suffering under bodily affliction. Disease in the poor constitutes an irresistible appeal to the sympathy and commiseration of all whose means enable them to assist in alleviating the sufferings of their fellow-beings.—Although the hospitals of this town are numerous, and amply supplied with funds, yet it has for many years been felt that they are not sufficiently capacious to receive all the sick poor who stand in need of relief. To remedy this defect, *Dispensaries* have from time to time been established; and these, in many cases, are highly useful, as the professional assistance and attention which certain patients require can be supplied at their own dwellings. But in many complaints this practice is incompatible; as in diseases requiring important surgical operations—cases demanding skill on the part of professed nurses—and a thousand conveniences not to be found in the destitute habitations of the poor. For such patients hospitals are indispensable; yet in London, the number of these institutions has not, by any means, kept pace with the rapid increase of its population. Numbers of sick are daily denied admission from the want of room; and many are prevented from applying to an hospital from the difficulty of procuring a Subscriber's Ticket. These considerations have led to the establishment of this Institution, where, to the extent of its means of accommodation, those suffering from diseases requiring surgical operations, or any treatment demanding particular attention, will be admitted into the house, without the formality of a subscriber's ticket. Patients with diseases of a less serious nature, remaining at their own abode, and capable of supplying themselves with medicines, will receive at stated hours, *every day*, advice and assistance from the surgeons. By adopting this mode of subdividing the patients, the funds will be the means of relieving a much greater portion of the sick than is usually accomplished.

This hospital, then, has two features worthy of particular notice: the first as regards the public; the second, the surgical profession. It differs from all other London hospitals, from its admitting the sick without a subscriber's ticket, the

delay often occasioned in obtaining which is frequently highly injurious to the afflicted, who, at all seasons, and at all hours, have an equally just claim upon public hospitals; in most other countries a refuge for the diseased poor is provided by the Government. To the profession generally, and to students in particular, the Panton-Square HOSPITAL OF SURGERY bids fair to become an object of great scientific interest, *as its doors are thrown open to all who are in search of knowledge, without any pecuniary sacrifice.* For this boon the profession and the public are deeply indebted to its liberal founder and surgeon, Mr. WARDROP.

This hospital was opened only at the beginning of the present year, and already a great number of important cases appear amongst its records; of some many excellent drawings and preparations have been made, which are exhibited to the professional visitor.

Availing ourselves of the liberties and toleration of this promising Institution, we shall from time to time insert such of the interesting cases as tend to illustrate important practical points.

This hospital is supported by voluntary contributions; and at the head of the list of benefactors appears our most Gracious Sovereign for the *annual donation of One Hundred Pounds.*

ST. GEORGE'S HOSPITAL.

Case of Strangulated Scrotal Hernia.

Stephen King, ætat. 30, was admitted into this hospital on Monday evening, May 15, with a tumour in the scrotum about the size of a clinched fist. He states that for many years he has been subject to hernia, which frequently descended, but was always easily reduced; he was in the habit of wearing a truss since he was first afflicted with hernia, but accidentally it broke on Friday last, and on Saturday the hernia descended, but could not be reduced as usual. His bowels having not been moved since the descent of the hernia, he took some medicines on Sunday, which had the desired effect of procuring several evacuations; he was also frequently sick during the day, which he attributes more to the effects of the medicine than to the hernia. On Monday, before his admission into the hospital, his bowels were twice moved. After his admission there did not seem to be any of the symptoms of strangulated hernia; has not been sick (except on Sunday) since the descent of the hernia; has no pain or tenderness on pressure in the hypogastrium; the tumour in the scrotum can be traced up the groin, and through the abdominal canal into the abdomen: the testicle can be felt at the lower and back part of the tumour. The tumour feels as if it was divided into two hard irregular divisions, between which the fluctuation of fluid can be distinctly felt. The house surgeon ordered the patient immediately into the warm bath; he also bled him; then he attempted the reduction of the hernia, but failed. Mr. Brodie was then sent for, and, on his arrival, he also attempted to reduce the hernia, but failed also. Not finding the symptoms very urgent, he proposed to meet the other surgeons in consultation at half-past eight o'clock, P.M. The contents of the hernia were then pronounced to be omentum, and Mr. Brodie deemed it imprudent to have recourse to an operation, stating, that there would be considerable danger in exposing so large a portion of omentum as what appeared to be contained in the scrotum; and after exposing it there were only two courses to be adopted; the one to cut off the omentum, and from its large size that would be attended with very considerable danger; the other, to return the omentum; and he never saw coiled-up omentum returned into the abdomen but once, and that case terminated fatally. The practice he was resolved to adopt in this case was.—[Here Mr. Brodie mentioned a similar case to the present that was in the hospital in the year 1808, and after the attempts at reduction failed. Symptoms not being very urgent, the patient was put on the antiphlogistic regimen; quiet, and the occasional application of leeches to the scrotum: soon he was enabled to leave the hospital with the omentum in his scrotum, considerably diminished in size, and suffering little or no inconvenience from it; and has never afterwards been troubled with hernia. All cases of omentum that he has seen since, have been similarly treated, and with similar good success.] Here, then, he would recommend blood to be taken from the arm, the man to enjoy perfect rest and low diet.

19. Since his admission has been bled three times; the tumour is smaller; the febrile excitement is abated, and the bowels are regularly moved.